UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2015

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission File Number 001-36548

ATARA BIOTHERAPEUTICS, INC.

(Exact name of Registrant as specified in its Charter)

Delaware	**46-0920988**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
701 Gateway Blvd., Suite 200 South San Francisco, CA	**94080**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: **(650) 278-8930**

Securities registered pursuant to Section 12(b) of the Act: Common Stock, par value $0.0001 per share, traded on The Nasdaq Stock Market

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES ☐ NO ☒

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. YES ☐ NO ☒

Indicate by check mark whether the Registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES ☒ NO ☐

Indicate by check mark whether the Registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit and post such files). YES ☒ NO ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405) is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definition of "large accelerated filer", "accelerated filer", and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	☐	Accelerated filer	☒
Non-accelerated filer	☐ (Do not check if a small reporting company)	Small reporting company	☐

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). YES ☐ NO ☒

The aggregate market value of common stock held by non-affiliates of the Registrant, based on the closing sales price for such stock on June 30, 2015 as reported by The Nasdaq Stock Market, was $698,303,925. The calculation of aggregate market value excludes 11,292,937 shares held by executive officers, directors and stockholders that the Registrant has concluded are affiliates of the Registrant. Exclusion of such shares should not be construed to indicate that any such person possesses the power, direct or indirect, to direct or cause the direction of the management or policies of the registrant or that such person is controlled by or under common control with the Registrant.

The number of outstanding shares of the Registrant's Common Stock as of February 15, 2016 was 28,692,220.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's definitive proxy statement relating to its 2016 Annual Meeting of Stockholders are incorporated by reference into Part III of this Report where indicated. Such proxy statement will be filed with the U.S. Securities and Exchange Commission within 120 days after the end of the fiscal year to which this report relates.

ATARA BIOTHERAPEUTICS, INC.

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FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Such forward-looking statements, which represent our intent, belief or current expectations, involve risks and uncertainties and other factors that could cause actual results and the timing of certain events to differ materially from future results expressed or implied by such forward-looking statements. In some cases you can identify these statements by forward-looking words such as "believe," "may," "will," "estimate," "continue," "anticipate," "intend," "could," "would," "project," "plan," "expect" or the negative or plural of these words or similar expressions. Forward-looking statements in this Annual Report on Form 10-K include, but are not limited to, statements about:

- our expectations regarding the timing of initiating clinical trials, enrolling clinical trials and reporting results of clinical trials for our T-cell programs;
- the likelihood and timing of regulatory approvals for our product candidates;
- the potential market opportunities for commercializing our product candidates;
- our expectations regarding the potential market size and the size of the patient populations for our product candidates, if approved for commercial use;
- our expectations regarding the timing of reporting results from our Phase 1 clinical trial of STM 434;
- estimates of our expenses, capital requirements and need for additional financing;
- our expectation that our existing capital resources will be sufficient to enable us to fund our planned operations through 2018;
- our expectations regarding the timing of reporting results from clinical trials being conducted by Memorial Sloan Kettering Cancer Center ("MSK") of the T-cell product candidates we licensed in 2015;
- our ability to develop, acquire and advance product candidates into, and successfully complete, clinical trials;
- the initiation, timing, progress and results of future preclinical studies and clinical trials and our research and development programs;
- the scope of protection we are able to obtain and maintain for our intellectual property rights covering our product candidates;
- our use of proceeds from our public offerings of common stock;
- our financial performance;
- developments and projections relating to our competitors and our industry; and
- our ability to sell or manufacture approved products at commercially reasonable values.

These statements are only current predictions and are subject to known and unknown risks, uncertainties and other factors that may cause our or our industry's actual results, levels of activity, performance or achievements to be materially different from those anticipated by the forward-looking statements. We discuss many of these risks in this report in greater detail under the heading "1A. Risk Factors" and elsewhere in this report. You should not rely upon forward-looking statements as predictions of future events. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risks and uncertainties.

In this Annual Report on Form 10-K, unless the context requires otherwise, "Atara," "Atara Biotherapeutics," "Company," "we," "our," and "us" means Atara Biotherapeutics, Inc. and, where appropriate, its subsidiaries.

PART I

Item 1. Business

Overview

We are a clinical-stage biopharmaceutical company focused on developing meaningful therapies for patients with severe and life-threatening diseases that have been underserved by scientific innovation. We have two groups of product candidates: (a) allogeneic or third-party derived antigen-specific T-cells, and (b) molecularly targeted biologics.

T-cells are a type of white blood cell. Cytotoxic T-cells, otherwise known as cytotoxic T lymphocytes, or CTLs, have been shown to have the ability to kill cancer cells. Our T-cell product candidates arise from a platform technology designed to produce off-the-shelf, partially human leukocyte antigen, or HLA, matched cellular therapeutics utilizing CTLs. We licensed rights to these product candidates from Memorial Sloan Kettering Cancer Center, or MSK, in June 2015. Our initial T-cell product candidates target viral- or cancer-specific antigens and are designed to harness the body's immune system to counteract specific viral infections and cancers. Our most advanced T-cell product candidate, EBV-CTL, is in Phase 2 clinical trials for malignancies associated with Epstein Barr Virus, or EBV, including EBV-associated post-transplant lymphoproliferative disorders, or EBV-PTLD. EBV-PTLD is a cancer affecting some patients who have received an allogeneic hematopoietic cell transplant, or HCT, a solid organ transplant, or SOT, or are otherwise immunocompromised. Our second T-cell product candidate, CMV-CTL, is in Phase 2 clinical trials for cytomegalovirus, or CMV, an infection that occurs in some patients who have received an HCT or SOT or are otherwise immunocompromised. Our third T-cell product candidate, WT1-CTL, targets cancers expressing the antigen Wilms Tumor 1, or WT1, and is currently in Phase 1 clinical trials. In addition, we entered into a sponsored research collaboration with MSK to discover and develop additional T-cell product candidates. In October 2015, we entered into exclusive license and research agreements with another academic institution. These agreements enable us to access a technology complementary to that which was licensed from MSK and to pursue development of EBV and CMV-CTLs for other indications such as nasopharyngeal carcinoma, or NPC, gastric cancer, and multiple sclerosis, or MS. We are working with this academic institution on the submission to the FDA of one or more investigational new drug applications, or INDs, for these new indications.

Our molecularly targeted product candidates are biologics that inhibit myostatin and activin, members of the Transforming Growth Factor-Beta, or TGF-ß, protein superfamily, which play roles in the growth and maintenance of muscle and many other body tissues. Our lead molecularly targeted product candidate is STM 434. We commenced a Phase 1 clinical trial of STM 434 for ovarian cancer and other solid tumors in 2014. We have five additional molecularly targeted product candidates that modulate the TGF-ß pathway in preclinical development.

In clinical trials that enrolled patients with EBV-PTLD following HCT or SOT, efficacy following treatment with EBV-CTL compares favorably with historical data in these patient populations. In rituximab-refractory patients with EBV-PTLD after HCT, treatment with EBV-CTL resulted in one-year overall survival of approximately 60% in two separate clinical trials in comparison with historical data where median survival, or the time by which 50% of patients had died, was 16-56 days. In the setting of rituximab-refractory EBV-PTLD after SOT, similar results were observed, with one-year overall survival of approximately 60% in EBV-CTL-treated patients in comparison with an expected historical one-year survival of 36% in patients with high risk disease similar to the patients treated in the trials. In February 2015, the U.S. Food and Drug Administration, or the FDA, granted breakthrough therapy designation for EBV-CTL in the treatment of rituximab-refractory EBV-PTLD after HCT. Breakthrough therapy designation is an FDA process designed to accelerate the development and review of drugs intended to treat a serious condition when early trials show that the drug may be substantially better than current treatment. In June 2015, we met with the FDA to discuss late-stage development to support a potential approval in this indication. Based on guidance from the FDA, we submitted a special protocol assessment, or SPA, for a single arm pivotal trial in rituximab-refractory EBV-PTLD after HCT. We received feedback from the FDA regarding this SPA in which the FDA indicated that a single arm trial with response rate as the primary endpoint may provide an adequate basis for approval but it would be unlikely to grant an SPA for our proposed trial. We intend to continue the dialogue with the FDA regarding this trial design under breakthrough designation and expect to initiate this pivotal trial towards the end of 2016. Additionally, we intend to initiate a randomized pivotal trial in patients with EBV-PTLD after SOT towards the end of 2016. In February 2016, the FDA granted orphan drug designation for EBV-CTL for the treatment of patients with EBV-PTLD after HCT or SOT.

Results from ongoing Phase 2 trials of CMV-CTL have demonstrated similar efficacy in the setting of refractory CMV infection after HCT, with response rates exceeding 60% in patients with CMV viremia and disease resistant to multiple approved and investigational anti-viral therapies. We expect to meet with the FDA in the middle of 2016 to discuss late phase development with CMV-CTL to support approval.

While we evaluate the path to registration for both EBV-CTL and CMV-CTL in these initial indications, we intend to concurrently explore the clinical utility of these T-cell product candidates or other cellular therapies in other relevant disease states to expand their potential applicability. In addition, we believe that T-cells can be directed at a broad range of other targets to create future

product candidates. We believe that viral antigens are well suited to adoptive immunotherapy given that people with normal immune systems are able to mount robust responses to these viral targets, but immunocompromised patients and some cancer patients are not.

Our lead molecularly targeted product candidate, STM 434, a soluble ActR2B receptor that binds to Activin A, is in a Phase 1 clinical trial that will enroll approximately 70 patients with ovarian cancer and other solid tumors. In October 2015, we received orphan drug designation from the FDA for STM 434 in ovarian cancer, and we believe that novel therapies for clear cell and granulosa cell tumors could qualify for breakthrough therapy designation if supported by appropriate clinical data. Based on its mechanism of action, we also believe that STM 434 has the potential to be the first product to target tumor growth and proliferation through the inhibition of Activin A. STM 434 has a well-characterized mechanism of action and was developed initially, along with our other in-licensed molecularly targeted biologic product candidates, at Amgen, Inc., or Amgen. We are evaluating the remaining five pre-clinical molecularly targeted product candidates to determine the best path forward. Where appropriate, we intend to conduct preclinical studies and file INDs with the FDA for these candidates.

In December 2015, we announced results from a Phase 2 proof-of-concept clinical trial for PINTA 745, a molecularly targeted product candidate, for the treatment of protein energy wasting in patients with end stage renal disease. The trial did not meet its primary endpoint, defined as the percent change from baseline in lean body mass as measured by dual energy x-ray absorptiometry at week 12 following weekly treatment with PINTA 745. PINTA 745 also did not improve physical function, measures of glycemic control and markers of inflammation. There were no treatment related serious adverse events observed in the trial. We intend to complete the trial as designed; however, as a consequence of these results, we have suspended further clinical development of PINTA 745.

Our business model is to license or acquire, develop and commercialize novel therapeutics for serious unmet medical needs with validated targets and established proof of concept. Based on the properties of each of these molecules, including efficacy, safety, pharmacokinetics, affinity and other characteristics, we match each program to clinical indications that we believe maximize its therapeutic potential and may result in an expedited path to market. We believe our management team has the breadth and depth of experience to execute this model. Our management team includes:

- ***Isaac E. Ciechanover, M.D.***, our President and Chief Executive Officer, was Executive Director for Business Development at Celgene Corporation, or Celgene. At Celgene, he led the company's venture capital efforts and led licensing and acquisition activities with an aggregate transaction value of more than $6.7 billion. Those efforts included striking licensing and partnership transactions with cancer therapeutics companies Agios Pharmaceuticals, Inc., Acceleron Pharma Inc. and PTC Therapeutics Inc. Prior to founding Atara, Dr. Ciechanover was a Partner with Kleiner Perkins Caufield & Byers, a leading venture capital firm.
- ***Christopher Haqq, M.D., Ph.D.***, our Chief Medical Officer, was Vice President for Clinical Research and Development at Cougar Biotechnology, which was acquired by Johnson & Johnson in 2009. At Cougar Biotechnology, he was the lead clinician for a pivotal prostate cancer trial leading to market approval for Zytiga (abiraterone acetate). He has served as medical monitor for more than ten clinical trials and has contributed to drug development programs for a wide range of molecules, and served as an attending oncology physician and director of a translational laboratory at the University of California, San Francisco.
- ***Mitchall G. Clark***, our Chief Regulatory and Quality Officer, was previously Senior Vice President of Global Regulatory Affairs at Abraxis Bioscience, Inc., or Abraxis, where he submitted and managed five INDs for oncology and cardiovascular drugs, including Abraxane (nanoparticle albumin-bound paclitaxel).
- ***Gad Soffer***, our Chief Operating Officer, previously held various roles at Celgene, including most recently Global Project Leader for Abraxane following Celgene's acquisition of Abraxis, where he led successful regulatory submissions for pancreatic cancer and non-small cell lung cancer.
- ***John F. McGrath, Jr.***, our Chief Financial Officer, was previously Executive in Residence and Operating Partner at Kleiner Perkins Caufield & Byers. Prior to that time, he served as Vice President and Chief Financial Officer for Network Equipment Technologies, Inc., a publicly traded company. He has served on the board of directors of the Presidio Fund, a publicly traded mutual fund, and on the boards of directors and as Audit Committee chairman of publicly traded companies Actel Corporation and Endwave Corporation.
- ***Heather Turner***, our General Counsel and Secretary, was previously Senior Vice President, General Counsel and Secretary at Orexigen Therapeutics, Inc., a publicly traded company. Prior to that time, she served as Associate General Counsel - Corporate for Conor Medsystems, Inc., a publicly traded company, and an associate at Cooley LLP, a law firm.

Our T-Cell Product Candidates

T-cells are a critical component of the body's immune system and can be harnessed to counteract viral infections and some cancers. By focusing the T-cells on specific proteins involved in cancers and infections, the power of the immune system can be

employed to combat these diseases. In June 2015, we exclusively licensed from MSK worldwide rights to three clinical stage T-cell product candidates. We also have an exclusive option to exclusively license from MSK worldwide rights to certain other T-cell programs that are discovered or developed by MSK pursuant to sponsored research funded by us.

Our T-cell product candidates arise from a platform technology designed to produce off-the-shelf, cellular therapeutic options for patients with unmet medical needs. Our initial T-cell product candidates target viral- or cancer-specific antigens. In October 2015, we entered into exclusive license and research agreements with another academic institution. These agreements enable us to access a technology complementary to that which was licensed from MSK and to pursue development of EBV and CMV-CTLs for other indications such as NPC, gastric cancer, and MS. We are working with this academic institution on the submission to the FDA of one or more INDs for these new indications.

Our most advanced T-cell product candidate, EBV-CTL, is in Phase 2 clinical trials for the treatment of EBV-associated malignancies. EBV is the virus that causes mononucleosis and is associated with a number of more severe diseases, including certain malignancies and neurologic conditions, such as MS. EBV-CTL received breakthrough therapy designation from the FDA in February 2015 for the treatment of patients with rituximab-refractory EBV-PTLD after HCT, based on data from two separate clinical trials conducted by MSK. Since licensing our T-cell product candidates, the IND under which these trials were conducted has been transferred to us. In June 2015, we met with the FDA to discuss late-stage development to support a potential approval in this indication. Based on guidance from the FDA, we submitted an SPA for a single arm pivotal trial in rituximab-refractory EBV-PTLD after HCT. We received feedback from the FDA regarding this SPA in which the FDA indicated that a single arm trial with response rate as the primary endpoint may provide an adequate basis for approval but it would be unlikely to grant an SPA for our proposed trial. We intend to continue the dialogue with the FDA regarding this trial design under breakthrough therapy designation and expect to initiate this pivotal trial towards the end of 2016. Additionally, we intend to initiate a randomized pivotal trial in patients with EBV-PTLD after SOT towards the end of 2016. In February 2016, the FDA granted orphan drug designation for EBV-CTL for the treatment of patients with EBV-PTLD after HCT or SOT.

Our second T-cell product candidate, CMV-CTL, targets CMV, an infection that can result in blindness, illness or death, depending on the tissue it affects, in those with weakened immune systems. CMV is also associated with certain malignancies, including glioblastoma multiforme, or GBM. CMV-CTL is currently being investigated in Phase 2 clinical trials sponsored and conducted by MSK for CMV infections that occur in some patients who have received an HCT.

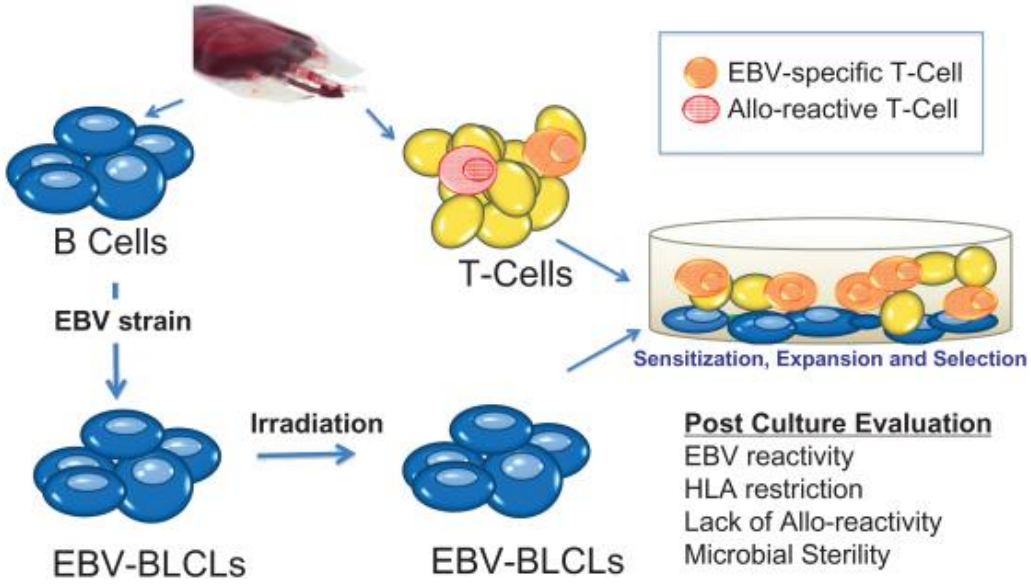
Our third clinical stage T-cell product candidate, WT1-CTL, targets WT1. Abnormal expression of WT1 is seen in a variety of hematologic and solid tumors, including MM, PCL, and ovarian cancer. This product candidate is currently in Phase 1 clinical trials sponsored and conducted by MSK.

Clinical experience with our T-cell product candidates is broad, including in immunocompromised states, as well as in solid and hematologic malignancies. Clinical data for EBV-CTL, CMV-CTL and WT1-CTL have been published in the journal *Blood* and presented at major scientific conferences. We are focusing our initial development and regulatory activities on EBV-CTL in the post-HCT and post-SOT setting and CMV-CTL in the post-HCT setting, which we believe offer a rapid path to marketing approvals if supported by additional clinical data. However, we intend to concurrently explore the clinical utility of our T-cell product candidates in other relevant disease states.

T-cell Technology Platform

Our T-cell product candidates share a common technology under which T-cells are collected from the blood of third-party donors and then exposed to a selected viral antigen in order to activate them against that particular virus. The resulting activated T-cells are expanded in number, characterized and stored for future therapeutic use in an appropriate partially HLA matched patient, providing an off-the-shelf, cellular therapeutic option for patients. Because these T-cells are off-the-shelf, patients often only need to wait days until they receive treatment. In addition to expanding the activated T-cells, the manufacturing process also leads to substantial reduction in the number of alloreactive cells, which can cause graft versus host disease, or GvHD. We believe this may reduce the risk of GvHD, a serious complication in immunocompromised recipients.

The process through which EBV-CTLs are generated is shown in the diagram below. First, B-cells derived from the blood of a third-party donor are exposed to a specific strain of the EBV virus to create EBV transformed B lymphoblastoid cell lines, or EBV BLCLs. The BLCLs are irradiated to prevent the BLCLs from growing and then co-cultured with T-cells derived from the blood of the same third-party donor. In this co-culture process, the BLCLs present EBV antigen to the T-cells to activate the T-cells against the EBV virus. These activated EBV-specific T-cells are then sensitized and expanded, while the potentially alloreactive cells contained in the same culture are not expanded. When complete, the cultures are assessed for EBV reactivity, HLA restriction, the absence of allo-specificity and microbial sterility. Once fully characterized in this way, the cell lines are cryopreserved and stored for future therapeutic use as an off-the-shelf therapy.



The donor's blood contains a mix of T-cells, some that have the potential to target EBV-infected cancer cells, and others called alloreactive or allospecific T-cells, which have the potential to target cells recognized as foreign. Administration of bulk third-party lymphocytes that contain a relatively high proportion of allospecific T-cells has the potential to cause severe and life-threatening toxicities such as GvHD when these allospecific T-cells recognize the recipient's native cells as foreign. Our manufacturing process enriches the product for the desired EBV-CTLs while depleting the undesirable allospecific T-cells as they are not stimulated to expand and eventually die. The existing manufacturing process typically results in an approximately 70-fold expansion in the number of EBV-CTLs and reduces by a factor of approximately 20 the number of GvHD-causing allospecific T-cells, compared with the prevalence of these two types of cells in a sample of bulk donor lymphocytes.

In addition to being evaluated for expansion before release for use in clinical trials, cells are also evaluated for HLA restriction. HLA restriction refers to the fact that any given T-cell line will only recognize such T-cell line's target—in this case an EBV protein—when it is bound to a particular HLA. For example, an EBV-CTL restricted by a particular HLA known as HLA A*02:01 will only kill EBV-infected cells that show that same EBV protein when bound to HLA A*02:01. This process identifies EBV-CTLs that are specific to the desired target, limiting undesirable off-target killing of other cells.

An appropriate cell line for use in a particular patient is typically defined as being matched with at least two of eight HLA alleles and restricted through a shared HLA allele. In an analysis conducted by MSK and reported at the 2015 American Association for Cancer Research, or AACR, annual meeting, an appropriate cell line was determined to be available for all but one of 200 consecutive unrelated transplant recipients and 100 cord blood transplant recipients. This analysis was based on evaluating these potential patients against a bank of approximately 330 HLA characterized EBV-CTL lines that MSK had generated to date. MSK's clinical experience has yielded an empirically derived, proprietary approach to selecting the appropriate cell line for use in individual patients. We believe this algorithm will ultimately allow us to deliver the therapy efficiently by focusing on a limited set of EBV-CTL lines without compromising our ability to treat a wide range of patients with diverse HLA types.

A similar process is used to generate and characterize CMV-CTL and WT1-CTL, and we also plan to utilize this process to generate diverse banks of targeted cytotoxic T-cell lines against other antigens of interest.

EBV-Targeted T-Cells for EBV-PTLD and Other EBV Associated Diseases

EBV is a member of the Herpes virus family and is one of the most common viruses in humans. It is present in all populations, infecting more than 95% of all individuals within the first four decades of life. In healthy individuals, EBV causes infectious mononucleosis, a generally benign self-limiting condition. Following the acute phase of EBV infection, the virus remains present in a small number of B-cells throughout the body; however, it is kept in check by the intact immune system. Though benign in the vast majority of people, EBV has been demonstrated to be involved in the development of many malignancies. In immunocompromised patients, EBV causes lymphomas and other lymphoproliferative disorders, collectively called EBV-PTLD. EBV-PTLD most commonly affects patients after HCT or after SOT. Even in patients with intact immune systems, EBV is associated with various hematologic malignancies and solid tumors including Hodgkin lymphoma, Burkitt's lymphoma, other B-cell malignancies, nasopharyngeal carcinoma and gastric cancer. EBV is also associated with certain diseases of the central nervous system, including multiple sclerosis.

The approximate estimated number of patients per year in the United States and European Union with EBV associated diseases is highlighted in the figure below.

Indication	Estimated Number of Patients
EBV-PTLD after HCT	1,400
EBV-PTLD after SOT	1,700
EBV positive Diffuse Large B cell lymphoma	5,800
EBV positive chemotherapy refractory Hodgkin lymphoma	2,100
EBV positive nasopharyngeal carcinoma	6,000
EBV positive gastric cancer	16,500
Primary and secondary progressive multiple sclerosis	>400,000

EBV-PTLD is a rare but serious complication in recipients of HCT. EBV-PTLD is often severe and sudden in onset and results in death in the majority of HCT patients who develop the disease. A study conducted by the Karolinska Institute that was reported in the journal *Haematologica* noted a three-year survival rate of just 20%. According to the U.S. Department of Health and Human Services, there were 8,338 allogeneic transplants in the United States in 2013, and according to the European Society for Blood and Marrow Transplantation, there were 14,950 allogeneic transplants in the European Union. While autologous transplants, or those obtained from the same individual, still comprise the majority of all transplants in the United States and European Union, the relative proportion of allogeneic transplants, or those obtained from a third-party donor, has increased over time, and we believe this trend will continue due to the increasing utilization of haploidentical transplants and reduced intensity transplants.

The monoclonal antibody, rituximab, is typically used off-label to treat EBV-PTLD, producing initial responses in approximately 55% of treated patients and durable responses in approximately 20% of treated patients. However, for those who relapse after rituximab therapy or fail to respond to rituximab, or for those with CD20 negative lymphoma (which is known to be unlikely to respond to rituximab), EBV-PTLD is frequently lethal. For example, it was reported in 2014 in the journal *Bone Marrow Transplantation* that the median survival period from diagnosis of rituximab-refractory EBV-PTLD in adult HCT patients was 33 days, and in 2014 it was reported in the journal *Haematologica* that median survival was 16 days. In 2008, it was reported in the journal *Bone Marrow Transplantation* that the median survival period from the time of diagnosis in a group of EBV-PTLD patients who received rituximab was 56 days. Taken together, these studies suggest a range of median overall survival, or OS, in the setting of rituximab failure of 16-56 days.

MSK is conducting two separate clinical trials of EBV-CTL that enroll a heterogeneous group of patients with a variety of EBV-associated malignancies, including, but not limited to, EBV-PTLD after HCT and EBV-PTLD after SOT. These trials are referred to as Study 95-024, initiated in 1995, and Study 11-130, initiated in 2011. Results from these two trials supported the granting of breakthrough therapy designation by the FDA for EBV-CTL in February 2015 for the treatment of rituximab-refractory EBV-PTLD after HCT. Data from these trials was presented at a clinical trials plenary session at the April 2015 AACR Annual Meeting and was subsequently updated at an oral presentation at the June 2015 American Society of Clinical Oncology, or ASCO, Annual Meeting.

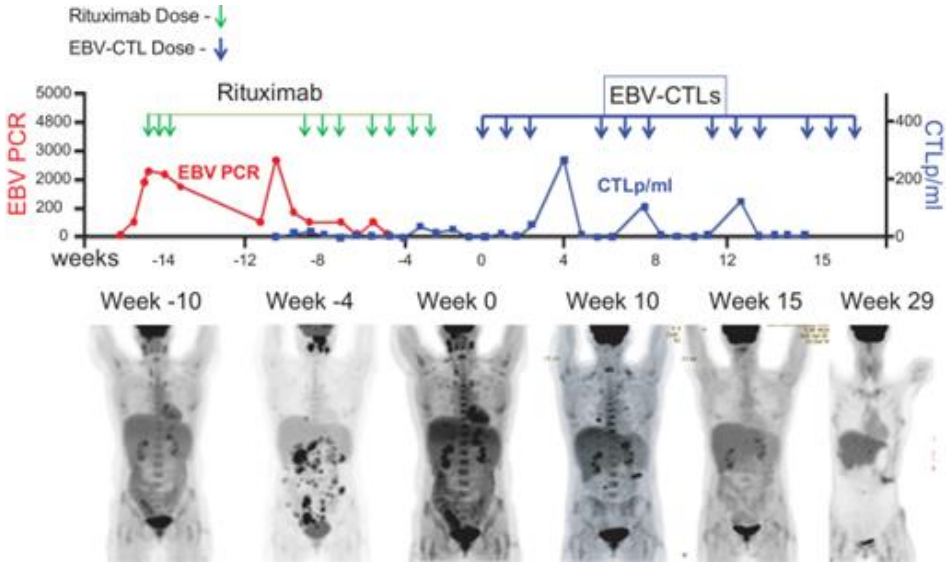
In Study 95-024, patients with EBV-PTLD following HCT were treated with EBV-CTL manufactured from T-cells derived from either the primary HCT donor or an unrelated third-party donor. The term primary HCT donor refers to the donor who provided hematopoietic stem cells for the HCT. As one measure of efficacy, response rate was evaluated in these patients. The response rate refers to the proportion of patients treated with EBV-CTL who had either a complete or partial response as best response to treatment when measured by radiographic imaging of the tumor. In a complete response, no visible evidence of tumor following treatment was observed. In a partial response, the tumor was reduced in size by more than 50% but less than 100%.

In both the primary HCT donor and third-party donor cohorts, similar response rates of approximately 60% were achieved. Such response rates suggest that the efficacy of treatment with primary donor derived and third-party donor derived EBV-CTL are comparable. The similarity in efficacy observed following treatment with third party and primary donor derived EBV- CTL is important, as there are significant limitations associated with a therapy derived from the primary transplant donor. First, it can take approximately eight weeks to generate an EBV-CTL line from blood remaining from the primary HCT donor. In this amount of time and based on historical data, approximately half of those patients who had either failed to respond or who had relapsed after rituximab would likely have succumbed to their EBV-PTLD and died before the cell line was available for therapeutic use. Second, due to the limited quantities of certain HCT donor materials such as umbilical cord blood, it is not possible to make a primary donor derived EBV-CTL line for all patients. Additionally, if the EBV-PTLD is of host rather than donor origin, T-cells derived from the primary HCT donor may not be able to recognize this host tumor, and therefore would not be expected to be effective in combatting the disease. Thus, we believe that the availability of off-the-shelf third-party derived EBV-CTL provides significant practical and therapeutic advantages in the treatment of rituximab-refractory EBV-PTLD. A median of two cycles of third-party derived EBV-CTL were administered in these trials. In each cycle, three doses of EBV-CTL were given weekly for three weeks. In addition, a number of patients with disease located in the central nervous system, or CNS, responded to treatment with EBV-CTL, suggesting that these cells are capable of passing through the blood-brain barrier.

The OS for patients with rituximab-refractory EBV-PTLD after HCT following treatment with third-party derived EBV-CTL was evaluated by MSK as well as presented at ASCO 2015 using industry standard Kaplan Meier, Or K-M, methods. One-year OS was approximately 60% in the patients from Study 95-024 and approximately 70% in the patients from Study 11-130.

Since these trials are ongoing, we expect that these K-M estimates of survival will evolve with ongoing follow-up of the patients and that a median OS may be reached in Study 11-130. However, we believe that these results compare favorably with the historically reported median survival of 16-56 days in the setting of rituximab failure. Moreover, patients who achieve a complete response after EBV-CTL treatment have been noted by MSK to experience durable remissions without relapse of their EBV lymphoma.

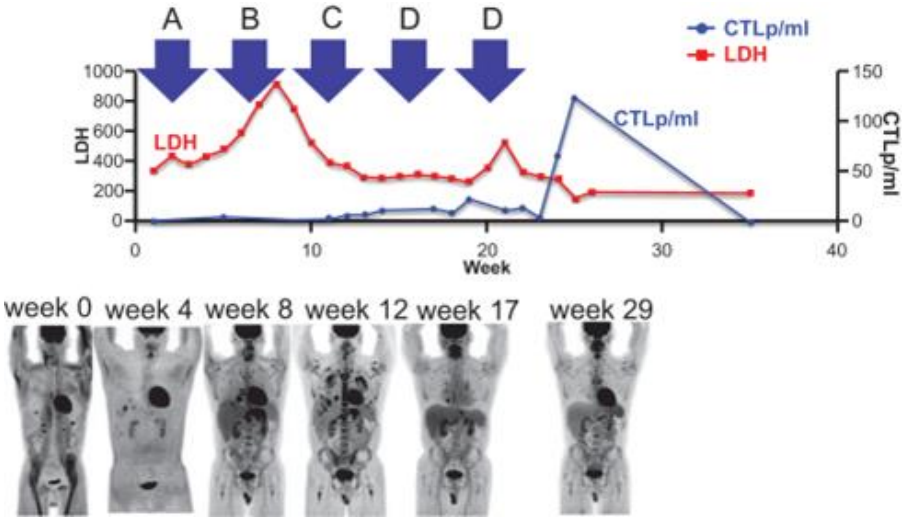
The time course of a complete response following multiple cycles of EBV-CTL in a patient with rituximab-refractory EBV-PTLD is shown below using sequential positron emission tomography, or PET, scans. Also shown are the timing of rituximab and EBV-CTL therapy depicted by the corresponding set of arrows, the levels of EBV DNA in the blood as measured by EBV polymerase chain reaction, or EBV PCR, a sensitive and specific technique to detect viral DNA depicted in the corresponding line, as well as the levels of CTL precursors per milliliter of blood, or CTLp/ml, depicted in the corresponding line. CTLp/ml identifies and enumerates activated T-cells.



This patient developed EBV viremia, or high levels of virus in the blood, early post-HCT as noted in the line labeled EBV PCR. Her viremia responded to rituximab, but recurred and it again responded to a second cycle of rituximab. In the interim, she developed a rapidly progressive diffuse large B-cell lymphoma, or DLBCL, that was EBV positive. By week 0, defined as the start of EBV-CTL therapy, the lymphoma is visible in the lymph nodes as well as in the liver and spleen. She received a first cycle of third party EBV-CTL after which she had a partial response. The patient received three subsequent cycles of EBV-CTL after which she achieved a complete response. In conjunction with each cycle of EBV-CTL, expansion of EBV-specific cytotoxic T-cells was detected, as shown

in the line labeled CTLp/ml. While these expansions were not durable, they mediated her complete response. The PET scans, in which dark areas correspond to areas of high metabolic activity, show both normal metabolism of organs such as the heart and abnormal metabolism in areas of lymphoma. After treatment with T-cells, the abnormal areas of metabolism recede, indicating eradication of tumor cells. In the final image, no abnormal metabolic activity is observed, reflecting a complete response to EBV-CTL therapy.

The ability to switch from one cell line to another led to the discovery of a hierarchy of HLA restriction. This is highlighted by the example below, in which a patient received three EBV-CTL lines (A, B and C) with different HLA restrictions, but only went into complete response upon administration of a fourth unique EBV-CTL line (D) with a different HLA restriction. We believe that future patients can be treated using a cell line selection algorithm based in part on the hierarchy elucidated in this manner that enables a more efficient choice of EBV-CTL.



Across all patients enrolled in the two trials, reports of treatment related adverse events were low, with few possibly related grade 3 and grade 4 adverse events observed. One patient developed grade 1 skin GvHD responding to topical steroids with no systemic therapy required. No infusion related toxicities or cytokine release syndrome was observed.

In part due to these results, treatment with EBV-CTLs is recognized as a recommended treatment for persistent or progressive EBV-PTLD as set forth in the 2015 National Comprehensive Cancer Network Guidelines. In addition, in December 2013, the FDA granted MSK cost reimbursement for use of the EBV-CTL in MSK's clinical trials.

Since licensing our T-cell product candidates, the IND under which Studies 95-024 and 11-130 were conducted has been transferred to us. In June 2015, we met with the FDA to discuss late-stage development to support a potential approval in EBV-PTLD after HCT. Based on guidance from the FDA, we submitted an SPA for a single arm pivotal trial in rituximab-refractory EBV-PTLD after HCT. We received feedback from the FDA regarding this SPA in which the FDA indicated that a single arm trial with response rate as the primary endpoint may provide an adequate basis for approval but it would be unlikely to grant an SPA for our proposed trial. We intend to continue the dialogue with the FDA regarding this trial design under breakthrough therapy designation and expect to initiate this pivotal trial towards the end of 2016.

EBV-PTLD after SOT

EBV-PTLD after SOT, also referred to as post-transplant lymphoproliferative disorder, is a spectrum of lymphoid malignant disease associated with the use of immunosuppressive drugs after SOT. Patients with EBV-PTLD, one of the most common neoplastic diseases after SOT, commonly present with stage 3 or 4 disease. Reduction in immunosuppression, antiviral therapy, or surgical resection are common treatments, but many patients with PTLD require systemic therapy, especially those with aggressive lymphoma morphology such as DLBCL. Chemotherapy remains undesirable in PTLD because of myelotoxic side effects of cytotoxic therapy and associated infections and toxic deaths. In addition, recipients of chemotherapy face the prospect of secondary malignancies in the future. Rituximab with or without chemotherapy is often used off-label after reduction in immunosuppressive therapy with a response rate of 44% to 60.5%. In the setting of rituximab-refractory EBV-PTLD after SOT, historical one-year survival of 36% is observed in patients with high risk disease. The rates of EBV-PTLD after SOT vary by organ transplant type and degree of immunosuppression with rates in the adult and pediatric settings ranging from <1% to 3.4% in kidney transplants, <1% to 4.4% in liver transplants, <1% to 15.0% in heart transplants, 2.4% to 9.8% in lung transplants, 2.0% to 10.0% in heart/lung transplants, and 20.0% to 30.0% in bowel

transplants. In addition, the rates of EBV-PTLD after SOT appear to be higher in children than in adults. One of the unique features of EBV-PTLD after SOT in comparison with the post-HCT setting is that the immunosuppression that ultimately gives rise to the lymphoma is in many cases required chronically and, as a result, the period of time during which an EBV-associated lymphoma may arise extends for the duration of immunosuppression. Although some cases of EBV-PTLD in SOT occur within the first year, many occur years after transplant.

In trials 95-024 and 11-130, patients with EBV-PTLD after SOT were treated with third-party derived EBV-CTL. All patients had failed to respond to or relapsed following rituximab treatment. Most had also progressed after receiving chemotherapy. Additionally, nearly all patients had high risk disease defined as those with age greater than or equal to 60 years, poor performance status, elevated LDH, or presence of disease in the central nervous system, or CNS. Response rate and OS results for these patients were also evaluated by MSK.

The response rate observed in the rituximab-refractory post SOT setting of greater than 50% and the one-year OS of approximately 60% are similar to those observed in the post HCT setting.

Since these trials are ongoing, we expect that these K-M estimates of survival may evolve with ongoing follow-up of the patients. Based on this data, we plan to solicit feedback from the regulatory authorities on the plan for late-phase development to support a potential marketing approval for EBV-CTL in the treatment of EBV-PTLD after SOT.

Other EBV-Associated Diseases

EBV-associated malignancies can occur even in immunocompetent patients, and include: Burkitt's lymphoma, Hodgkin lymphoma, non-Hodgkin lymphoma such as DLBCL, or NHL, NK T-cell lymphomas, nasopharyngeal carcinoma, or NPC, and gastric cancer. Typically, these malignancies occur many years after primary EBV infection. For Burkitt's lymphoma, approximately 15% to 30% of cases in the United States and European Union are associated with EBV. For Hodgkin lymphoma, approximately 20% to 50% of cases in the United States and European Union are associated with EBV; however, many of these are responsive to chemotherapy. Nearly 100% of NK T-cell lymphomas are associated with EBV. In NPC, the association with EBV is such that regardless of geography nearly 100% of the nonkeratinising tumors and all the tumor cells have been demonstrated to be monoclonally EBV-positive. EBV-positive gastric cancer can make up approximately 10% of all gastric cancers. In some of these tumor types, multiple EBV proteins are associated with the disease and in others, a smaller subset are made.

In the setting of CNS disease, a number of observations implicate EBV in the pathogenesis of MS. For example, MS patients are universally EBV seropositive, there are high levels of anti-EBV antibodies, their T-cells have altered immune function, there is an increase in spontaneous EBV-induced peripheral blood B-cell transformation, there is increased shedding of EBV from saliva, and EBV-infected B-cells and plasma cells accumulate in the brain.

We intend to explore the therapeutic utility of EBV-targeted cellular therapy in a number of these tumor types. We expect to develop specific cellular therapies that target the precise EBV antigen implicated in a disease. As we expand the use of EBV-targeted cellular therapy in these settings, we expect to present data at major scientific meetings and engage regulatory authorities to solicit agreement on the plan for late-phase development to support a marketing approval for EBV-CTL in the treatment of certain of these conditions.

CMV-Targeted T-cells for CMV Infection and Other CMV Associated Malignancies

CMV, also known as HHV-5, is a member of the Herpes virus family. CMV infection rate gradually increases throughout childhood, and, once infected, an individual carries the virus for life due to the ability of CMV to establish a latent state of infection. It is estimated that CMV infection affects 50% to 90% of the global adult population. Immunocompromised patients, including HCT and SOT patients, human immunodeficiency, or HIV, patients, and to a lesser extent cancer patients, are at highest risk for developing significant disease syndromes caused by CMV, including interstitial pneumonia, gastrointestinal infection, central nervous system disease, hepatitis, retinitis, and encephalitis. CMV reactivations have also been reported to occur frequently in critically ill immunocompetent patients and are associated with prolonged hospitalization or death. Congenital CMV infection causes deaths and leaves children with permanent disabilities such as hearing loss, vision loss, or mental retardation.

In the oncology setting, CMV is commonly associated with glioblastoma multiforme, or GBM, where approximately 95% of tumors express CMV. In GBM, multiple CMV proteins are associated with the disease.

While there have been many advances in detecting and managing CMV infections, the virus continues to be one of the most important infectious diseases among immunocompromised patients. Antiviral drugs in the form of prophylaxis or preemptive

treatment strategies have reduced morbidity and mortality, though adverse effects such as neutropenia and toxicity remain a challenge. The emergence of resistance to antiviral drugs also presents challenges to laboratory medicine and patient care.

The approximate estimated number of patients per year in the United States and European Union with refractory CMV infection and associated malignancies is highlighted in the figure below.

Indication	Estimated Number of Patients
Anti-viral resistant CMV after HCT	2,000
Anti-viral resistant CMV after SOT	1,300
Glioblastoma multiforme	21,000
Congenital CMV	9,000

CMV Viremia and Disease after HCT

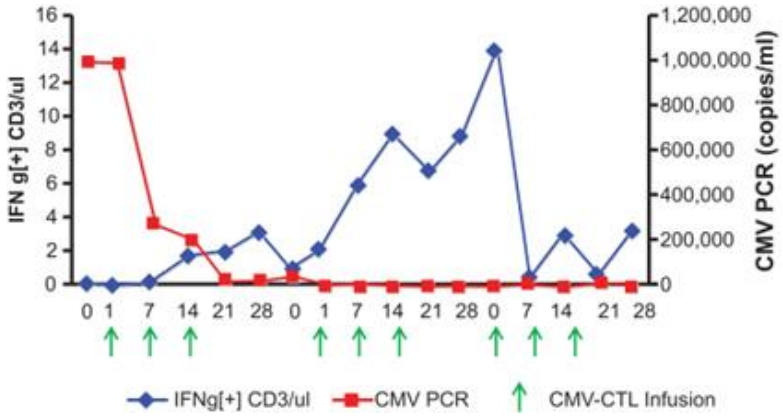
Despite the use of prophylactic and preemptive therapy using small molecule antivirals, many post-HCT patients progress to develop overt, symptomatic CMV viral diseases such as retinal infections that risk permanent blindness, encephalopathy with the risk of permanent brain damage and other serious morbidities. In prophylactic therapy, immunocompromised patients are given antiviral drugs for several months after HCT. In preemptive therapy, patients are intensively monitored for CMV activity using sensitive laboratory methods, and short-term antiviral treatment is given only to those with significant viral counts (CMV viremia) before symptoms and overt CMV disease occur. However, the antiviral drugs used to treat CMV have significant toxicities, including marrow toxicity for ganciclovir, valganciclovir and cidofovir, and renal toxicity for foscarnet and cidofovir. In addition, CMV drug resistance mutations arise during this antiviral therapy.

MSK has conducted one Phase 1 clinical trial and two Phase 2 clinical trials of CMV-CTL that included patients with CMV viremia and CMV disease, in each case resistant to antiviral drug treatment. An interim summary of MSK's clinical experience was reported at the December 2014 ASH Annual Meeting. This analysis evaluated outcomes in patients who were treated with CMV-CTLs after failing a median of four different antiviral drugs. Following the ASH presentation, in January 2015, MSK provided us with a more current summary of its clinical experience to account for additional cycles of CMV-CTL therapy in which certain patients with stable disease and partial responses from the interim summary had converted to complete responses after additional CMV-CTL therapy. Response rates of greater than 60% were noted in patients with antiviral resistant CMV viremia as well as CMV disease. Responses in patients treated for viremia alone with CMV-CTLs were considered to be complete responses if the viremia resolved completely and partial responses if the viral load fell 100-fold or more. Responses in patients treated for overt disease were considered to be complete responses if all detectable CMV viremia and disease resolved and partial responses if patients became asymptomatic.

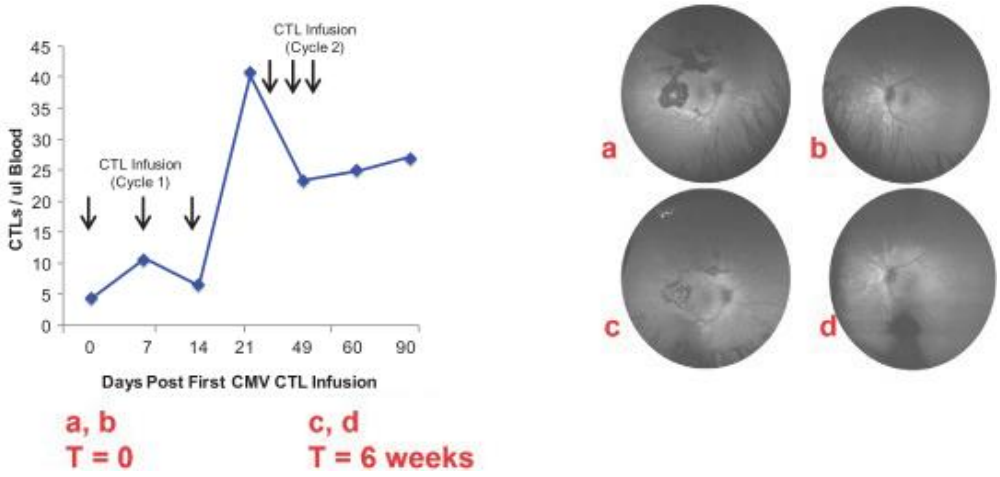
An additional subset analysis of MSK's clinical experience from the ongoing Phase 2 clinical trial and including patients treated under compassionate use was reported at the December 2015 ASH Annual Meeting. This analysis included patients with refractory CMV disease in the CNS who were treated with either primary donor derived or third-party derived CMV-CTL. Nearly all of these patients were treated with third-party derived CMV-CTL and one was treated with a primary donor derived CMV-CTL. Patients had received a range of three to six prior therapies before treatment with CMV-CTL. The overall response rate was more than 70%, including seven complete responses and one partial response. Responses in these patients treated for CMV disease in the CNS were considered to be complete responses if all detectable CMV viremia and disease resolved and partial responses if patients became asymptomatic.

We believe this data suggests a high response rate among patients with otherwise refractory CMV viremia and disease. Overall, CMV-CTL therapy was well tolerated and no patients developed *de novo* GvHD, or a flare-up of prior GvHD, in association with infusion of CMV-CTLs.

Two individual patient experiences following treatment with CMV-CTL are described below. The graph below shows the time course of a reduction in CMV viremia and a reciprocal increase in the proliferation of CMV-CTL following administration. The improvement in CMV viremia is evidenced by a decline in blood CMV DNA ascertained by CMV PCR. The reciprocal proliferation of CMV-CTL following administration is reflected by the release of interferon-gamma (IFNg[+]) in CMV-CTL detected via flow cytometry; interferon-gamma positivity identifies and enumerates activated T-cells.



The following retinal photographs depict improvement in CMV retinitis for a patient treated with CMV-CTL. The baseline images, labeled “a” and “b”, show the right and left retinae, respectively, at the start of CMV-CTL administration. Subsequent images “c” and “d” capture the response of the patient’s CMV retinitis at six weeks after first CMV-CTL administration. In the retinal images, the dark areas correspond to affected portions of the retina. The response of retinal disease to treatment with CMV-CTL suggests that, as was observed with EBV-CTL, the cells are able to reach areas of the body typically not accessible to systemic therapies.



Based on these results, we intend to continue to support the ongoing Phase 2 clinical trials of CMV-CTL and meet with health authorities to establish a plan for late-phase development to support potential marketing approvals in treatment of anti-viral resistant CMV viremia and symptomatic disease after HCT, including retinitis.

Other CMV-Associated Conditions and Malignancies

CMV is among the most common and important infectious agents among SOT patients. In transplant recipients, the factor that most strongly influences the degree of morbidity and mortality caused by CMV is the type and extent of immunosuppressive therapy. Reactivation can occur in any individual who is latently infected. However, no transplant patient is safe from CMV since this pathogen can also be acquired from the transplanted organ. CMV can also be community acquired following transplantation and is of particular concern in pediatric transplant patients. In SOT patients, particularly those who develop a primary infection during the first three months post-transplant, a specific CMV syndrome consisting of fever, malaise, arthralgia, and neutropenia may be observed. CMV infections have been associated with indirect effects, such as dysfunction or rejection of the transplanted organ; increased risk for bacterial or fungal opportunistic infections; development of EBV-associated post-transplant lymphoproliferative disorder;

accelerated atherosclerosis in heart transplant patients; and decreased patient and graft survival. In the absence of antiviral intervention, symptomatic CMV infections occur in approximately: 50% to 75% of heart-lung transplant recipients, 23% of heart transplant recipients, 22% to 29% of liver and pancreas transplant recipients, 8% to 32% of kidney transplant recipients, 50% of kidney-pancreas transplant recipients, and 22% of small-bowel transplant recipients.

Malignant gliomas are the most common primary CNS neoplasms in humans. However, most patients who are diagnosed with a glioblastoma multiforme, which is the most common and malignant form of malignant glioma, still have a mean survival less than two years. In the last few years, multiple investigators have confirmed the presence of CMV in GBM, and multiple CMV gene products are now implicated in biologically relevant GBM signaling pathways. Preclinical studies published in 2013 in the journal *Cancer Research* indicate that CMV may be unique in its ability to promote oncogenesis in the setting of a prior tumor suppressor dysfunction. Given the emerging role of CMV in GBM, antiviral strategies that block CMV expression or stimulate immune attack of CMV-infected cells may prove beneficial as novel therapeutics for GBM, and both direct antiviral strategies and specific CMV-based immunotherapy approaches are showing early promise.

Based on the established proof of concept for CMV-CTL in the treatment of antiviral resistant CMV viremia and disease after HCT, we intend to explore the therapeutic utility of CMV-targeted cellular therapy in a number of other immunocompromised states, including potentially after SOT. In addition, the clinical data with both EBV-CTL and CMV-CTL have demonstrated the ability of these product candidates to access the brain and mediate clinical responses in difficult to treat CNS disease. As a result, we believe that CMV-targeted cellular therapy may provide a novel off-the-shelf cellular therapeutic option for patients with GBM, and we intend to explore its clinical utility in this setting as well. As we expand the use of CMV-CTL in these settings, we expect to present data at major scientific meetings and engage regulatory authorities to solicit agreement on the plan for late-phase development to support potential marketing approval for CMV-CTL in the treatment of certain of these conditions.

WT1 Targeted T-Cells for Hematologic Malignancies and Solid Tumors

WT1 is an intracellular protein that is overexpressed in a number of cancers, including multiple myeloma, or MM, and non-small cell lung, breast, pancreatic, ovarian, and colorectal cancers. We have two ongoing Phase 1 clinical trials sponsored and conducted by MSK with primary HCT donor derived WT1-CTL. The first is a dose escalation trial of WT1-CTL for residual or relapsed leukemia after HCT. The second is a dose escalation trial of WT1-CTL following T-cell depleted HCT for patients with relapsed or refractory MM, including PCL. In 2011, it was reported in the journal *Blood* that the prognosis of PCL is poor with a median survival of seven to eleven months and that survival is even shorter, two to seven months, when PCL occurs in the context of refractory or relapsing MM. At the ASH 2015 Annual Meeting, MSK presented results from this Phase 1 clinical trial of primary donor-derived WT1-CTLs. In this trial, response assessments were conducted utilizing criteria consistent with those defined by the International Myeloma Working Group.

- Patients with relapsed-refractory MM, including PCL were treated with allogeneic HCT followed by WT1-CTLs.
- At one year, a response rate of greater than 50% was observed in these patients. For these data, the response rate was determined by adding the complete responses to the partial responses and then dividing by the number of patients.
- Two patients who developed a complete response remain in remission for more than one year.
- There were no serious adverse events reported related to treatment with WT1-CTLs.

As these trials complete, we expect our collaborating investigators at MSK to present additional data at upcoming conferences. In addition, based on data from these trials, we expect to explore the clinical utility of WT1-CTL in these hematologic malignancies. In the setting of solid tumors, we believe that treatment with WT1-CTL may be potentiated through combination approaches with other agents.

Additional Platform Expansion Activities

We anticipate that our T-cell technology platform will have utility beyond the current set of targets to which it has been directed. We and MSK have agreed to collaborate on further research to develop additional cellular therapies, which may include T-cell programs targeted against other antigens and chimeric antigen receptor, or CAR-T, cell programs. Pursuant to the existing agreements with MSK, we have an option to license these additional cellular therapies. We believe that viral antigens are well suited to adoptive immunotherapy given that people with normal immune systems are able to mount robust responses to these viral targets, but immunocompromised patients and some cancer patients are not. We also intend to license or acquire additional product candidates or technologies to enhance our existing T-cell technology platform.

Our Molecularly-Targeted Product Candidates

STM 434, a Targeted Therapy for Ovarian Cancer and Other Solid Tumors

Our lead molecularly targeted product candidate, STM 434, is in a Phase 1 clinical trial in ovarian cancer and other solid tumors, which commenced in 2014. In October 2015, we received orphan drug designation from the FDA for ovarian cancer. STM 434 is a soluble ActR2B receptor-IgG fusion protein that binds the signaling molecule human activin. STM 434 has the potential to be the first product to target tumor growth and proliferation by inhibiting multiple ActR2B ligands, including Activin A. A ligand is a protein that binds a receptor on a cell to trigger a signal. In ovarian cancer, Activin A is a novel and promising target. Published data, including a study in *Clinical Cancer Research* in 2008, as well as our preclinical data, suggest that Activin A is upregulated in patients with ovarian cancer, and blocking it reduces proliferation of tumor cells. In many solid tumor types, upregulation of Activin A is correlated with poorer prognoses.

Ovarian Cancer

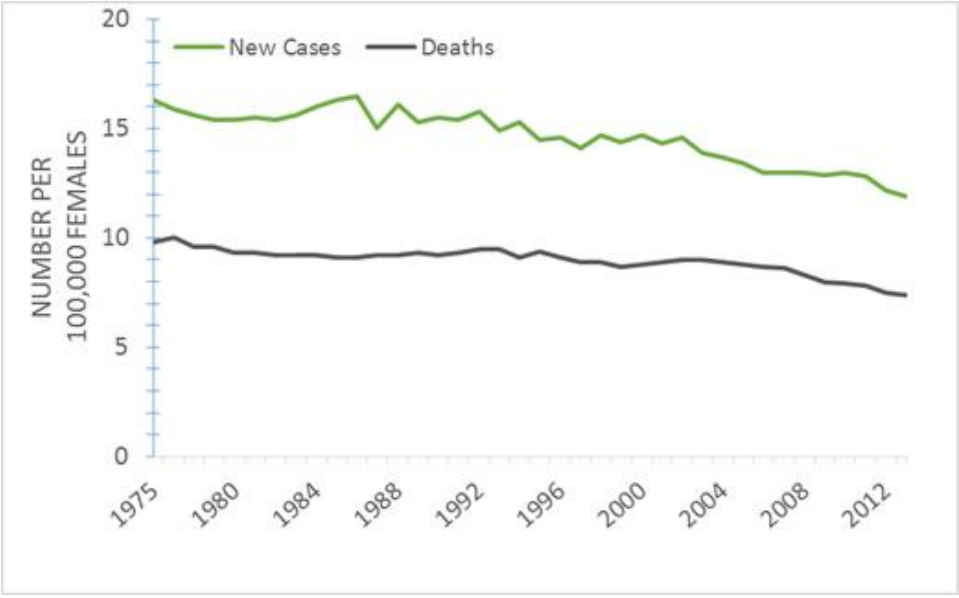
Ovarian cancer is the fifth leading cause of cancer death in women in the United States. According to the National Cancer Institute, there were an estimated 22,192 new ovarian cancer cases and 14,180 ovarian cancer deaths in the United States in 2015. Surgery and cytotoxic chemotherapies are widely used to treat ovarian cancer; however, the outcomes have changed little in 40 years. There were estimated to be approximately 192,500 women suffering from ovarian cancer in the United States in 2012. According to the American Cancer Society, based on patients diagnosed between 2005 and 2011, the blended five-year survival rate is only 45.6% for ovarian cancer patients overall.

Ovarian cancers are divided into three distinct main subtypes:

- serous adenocarcinoma, which accounts for approximately 63% of ovarian tumors in the United States;
- clear cell cancers, which account for up to 11% of ovarian tumors in Western countries and a higher percentage in Asian countries. For example, clear cell cancers have been reported to account for approximately 23% of ovarian tumors in Japan; and
- granulosa cell tumors, which account for approximately 2% to 5% of ovarian tumors in the United States.

Limitations of Current Therapies for Ovarian Cancer

Despite the strong unmet need for better therapies, there have been few new treatment options introduced, and numerous studies, including a 2012 study published in *Obstetrics & Gynecology*, have shown that clinical outcomes have not improved significantly for several decades. The number of new cases and deaths in the United States per 100,000 people (all races), age-adjusted, is as follows:



First Line Treatment

Surgical therapy for ovarian cancer that has not escaped the ovary can be curative. In other cases, palliative debulking surgery is done. However, for women with advanced or recurrent tumors that have escaped the ovary and involve critical anatomic structures, there are no curative therapies, and chemotherapy is generally employed. When chemotherapy is indicated, treatment for these subtypes vary but are generally based on a foundation of platinum chemotherapy. Response rates and outcomes vary among subtypes.

- Serous tumors have a reported response rate to chemotherapy of 72% to 73%, according to a 2005 study in the journal *Clinical Cancer Research*; however, most patients relapse, resulting in a median survival of approximately 40.8 months, according to a 2010 publication in the *International Journal of Gynecological Cancer.*
- Clear cell tumors have a platinum-based chemotherapy response rate of approximately 11% as reported in a 2006 study in the *British Journal of Cancer.* Median overall survival in patients with clear cell tumors is approximately 21.3 months.
- The data on post-surgery response rates to chemotherapy in the granulosa subtype of ovarian cancer is limited due to its rarity.

Recurrent Disease Treatment

For patients whose tumors did not respond to first line therapy, or for those whose tumors became unresponsive to platinum chemotherapy, a number of other chemotherapy options may be applied, including liposomal doxorubicin, topotecan and gemcitabine. Despite these therapies, the median survival of platinum chemotherapy resistant ovarian cancer is approximately 13 months.

Role of Activin A in Ovarian Cancer and Other Solid Tumors

Activin A, a secreted growth factor, is a member of the TGF-ß superfamily of growth factors, which also includes Activin B, Activin AB, GDF-11 and others. Activin A is widely understood to be involved in the growth and proliferation of ovarian cancer and other solid tumors. Some of the other secreted proteins in this superfamily, including Activin AB, have also been implicated in the growth of these tumors. As reported in *BMC Medical Genomics* in 2010, overexpression of Activin A in support cells called stroma is a key component of a metastasis-associated gene expression signature. This signature predicts shortened survival across a number of cancers including, ovarian, gastric and breast cancers. Overexpression of Activin A is now recognized as a common feature across advanced solid tumors including head and neck, colon, gastric, esophageal, pancreatic and non-small cell lung cancer. In addition to their role in regulating interactions between epithelial cells and stromal cells, activins may be involved in regulating stem cell survival.

Activin A has been found to play a role in the three principal subtypes of ovarian cancer: serous, clear cell and granulosa. For example, the mRNA precursor for activin has been found to be upregulated in approximately 30% of specimens of serous ovarian cancer. At the protein level, as published in 1997 in the *Journal of Clinical Endocrinology and Metabolism*, most typical serous ovarian cancers made serum Activin A.

Many women with ovarian cancer have high levels of Activin A. The utility of high Activin A in ovarian cancer will be explored in the currently ongoing Phase 1 clinical trial.

Genetic Linkages to Ovarian Cancer Subtypes

Mutations in the BRCA gene have been found in 5% to 10% of serous ovarian tumors, suggesting that there is a genetic link between the activin pathway and ovarian cancer. According to a 2012 publication in the journal *PloS One*, these patients with BRCA mutations fail to produce the Activin A counter-regulators follistatin and inhibin, implying that these tumors may be unable to switch off activin signaling.

In clear cell ovarian cancer, studies have shown that mutations in the ARID1A gene contribute to tumor proliferation. Specifically, these mutations drive upregulation in the signaling cascade triggered by the ActR2B receptor. Mutations in the ARID1A gene were present in 46% and 55% of ovarian clear cell tumors, as reported in a 2010 publication in *The New England Journal of Medicine* and a 2014 publication in *BMC Cancer*, respectively. We believe that increased levels of activin mimic the effect of ARID1A mutations, and therefore play a similar role in clear cell ovarian cancer.

In granulosa cell ovarian cancer, mutations in the FOXL2 C134W gene have been suggested in several studies to drive the growth of tumors. This mutation was present in 97% of granulosa cell tumors as reported in a 2009 publication in *The New England Journal of Medicine*. In a normal cell, activin is under tight control—FOXL2 protein turns on follistatin when an activin signal is received, and follistatin, a natural inhibitor of activin, then shuts off the activin signal. However, in granulosa cell tumors, mutant FOXL2 C134W is not able to turn on follistatin, and activin signals continue unchecked. These studies have been reported in 2014 in

the journal *Biochemical and Biophysical Research Communications* as well as in 2013 in the journal *Molecular and Cellular Endocrinology*.

Mechanism of Action of STM 434

We believe that STM 434 has the potential to be the first product to address directly the underlying biology of ovarian tumors.

Activin A is known to act through the ActR2B receptor on the surface of ovary cells. When the receptor receives the signal from Activin A, it initiates a cascade of gene transcription that leads to abnormal cell proliferation, cell migration, blood vessel formation and inhibition of programmed cell death. STM 434 is a ligand trap, which mimics the ActR2B receptor, binding Activin A and other ligands that would normally activate this receptor. Several ligand traps based on other receptors have been developed as therapeutic products and commercialized successfully. The choice of a ligand trap for STM 434 conforms mechanistically with the goal of binding Activin A and other secreted proteins associated with the ActR2B receptor and tumor growth.

Preclinical Studies

Preclinical testing of STM 434 was designed to confirm and quantify its effects in binding Activin A and other ligands with a receptor-like ligand trap. These studies were conducted with STM 217, a close analog of STM 434, which we refer to as STM 434/s. In addition, these studies were carried out in two types of mouse models: TOV-21G mice, which are analogous to patients with clear cell ovarian tumors and carry ARID1A mutations, and inhibin knockout mice, which are analogous to patients with granulosa cell tumors.

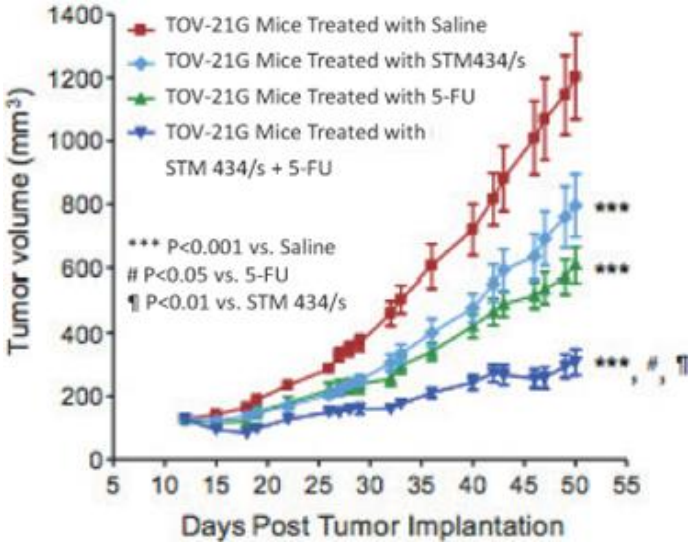
Results of the TOV-21G study have shown that blocking Activin A by using a soluble receptor, as both a single therapy and in combination with chemotherapy, led to a reduction in tumor size. In other experiments, knockout mice that were born without inhibin, and therefore had high activin levels that led to granulosa cell ovarian tumors, survived longer after treatment with STM 434/s in comparison to untreated mice. A 2007 publication in the journal *Molecular Human Reproduction* showed that the survival of the knockout mice was greatly improved when they were treated with an ActR2B-Fc fusion similar to STM 434. Other mouse tumor models tested, including renal cell carcinoma, melanoma and small cell lung cancer, were shown to be sensitive to activin levels and antitumor responses were seen when activins were inhibited.

TOV-21G Mouse Models (Clear Cell Ovarian Tumors)

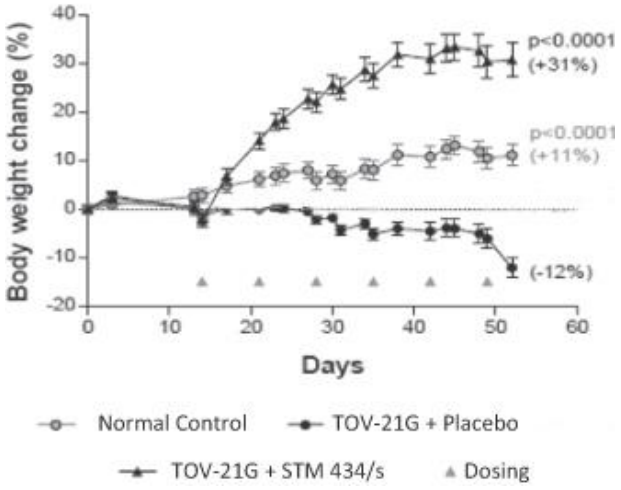
In a preclinical study using TOV-21G mice, tumors derived from human clear cell ovarian carcinoma were shown to have high levels of serum Activin A, analogous to those observed in human ovarian cancer patients as described above.

In a subsequent preclinical study that we presented together with Amgen at the American Society of Clinical Oncology meeting in 2013, we evaluated STM 434/s in this TOV-21G model used as both a single agent and in combination with the chemotherapy agent 5-fluorouracil, or 5-FU. STM 434/s was administered subcutaneously weekly at 10.0 mg/kg beginning on day 12. 5-FU was administered for three cycles. The tumor was measured two to three times per week, up to day 52. Results from these experiments showed a statistically significant ($p<0.0001$) approximately 30% reduction in tumor volume for the agent. Results of the combination experiments demonstrated in the figure below showed an additive ($p<0.0001$) approximately 70% reduction in tumor growth.

Additive Effect with 5-FU

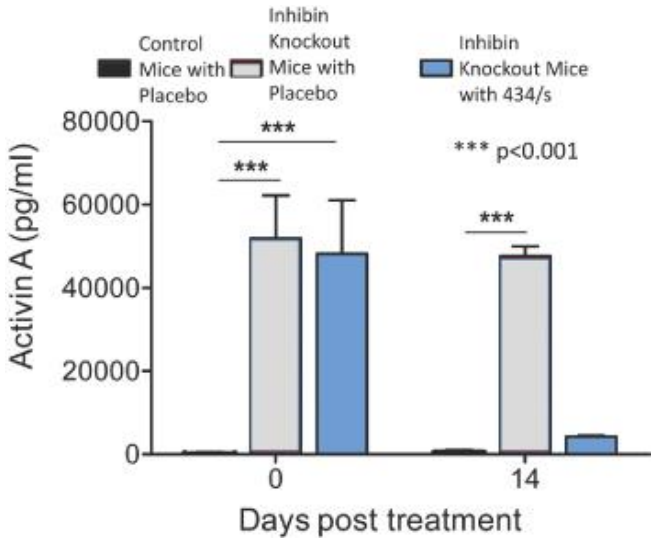


In addition, this study examined the anticachectic effects of STM 434/s in this model. Cachexia is a condition associated with significant weight loss often seen in patients with solid tumor cancers. The results of this study showed that the administration of STM 434/s increased body weight of the mice. In addition to demonstrating the antitumor properties of STM 434/s, we believe that this data also demonstrates that an ActR2B soluble receptor may provide an additional benefit to patients by addressing cancer cachexia. We intend to investigate these attributes as part of our planned Phase 1 clinical trial.



Inhibin Knockout Mouse Model (Granulosa Cell Tumors)

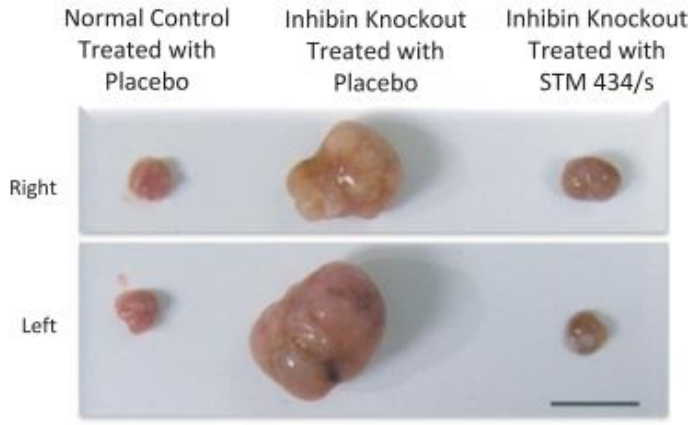
For granulosa cell studies, a knockout mouse model was used with STM 434/s. The study showed that serum Activin A levels in the knockout mice were elevated, and upon treatment with STM 434/s Activin A levels were significantly reduced.



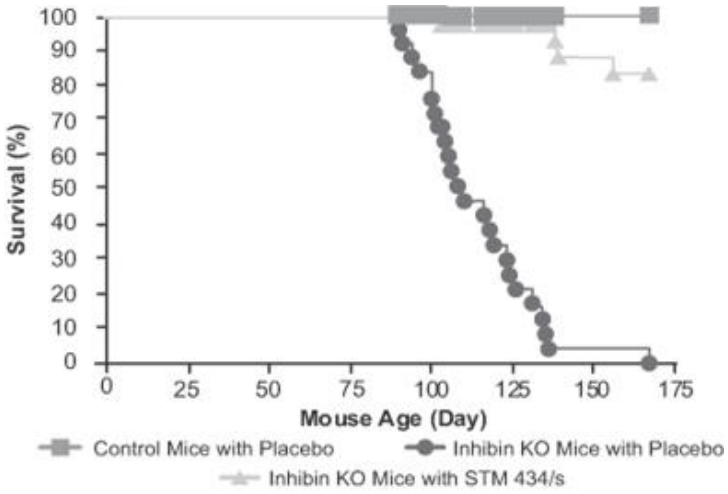
STM 434/s treatment reduced the elevated circulating Activin A in the inhibin knockout mice to the levels in control mice. Serum Activin A was measured before and 14 days after treatment.

Further, this study showed that treatment with STM 434/s reduced ovary size to near normal in comparison to control mice treated with saline. A representative example of the observed reduction in size is shown below. In this study, STM 434/s was administered as a single dose of 30 mg/kg.

Ovarian Tumor Size



Lastly, the knockout model treated with STM 434/s showed a statistically significant ($p < 0.0001$) improvement in survival with approximately 90% alive at 133 days of age, as compared to knockout mice treated with saline, where more than 95% had died by this time.



In July 2014, Amgen provided us a draft report from a 2009 eight-week pharmacology study of STM 217, a compound closely related to STM 434 and which we also refer to as STM 434/s, in orchiectomized (neutered) male cynomolgus monkeys. This pharmacology study was designed to explore the ability of STM 217 to reverse the effects of androgen deprivation. In the study, two weekly doses of STM 217 were evaluated at 3 mg/kg and 10 mg/kg. The study found that STM 217 was effective in mitigating the muscle and bone loss that accompany androgen deprivation in this animal model.

In addition to the muscle and bone effects, clinical observations from the study included bleeding from the muzzle (similar to human nosebleeds) in some of the monkeys and one animal bleeding from a skin lesion over the buttock. In this study, it was not possible to determine if the bleeding was caused by STM 217. To further characterize this observation, we performed additional in vitro studies of STM 217 and STM 434. Platelets, a component of blood that helps stop bleeding, were evaluated, and neither STM 217 nor STM 434 impacted platelet function. We also evaluated BMP-9, a factor involved in bleeding and blood vessel development known to be mutated in humans with hereditary hemorrhagic telangiectasia, or HHT. Both STM 217 and STM 434 bound to BMP-9 in these studies, suggesting that the bleeding observed with STM 217 could also be observed with STM 434. The observations from the STM 217 report and the in vitro studies we conducted have been shared with the FDA.

As a result of these findings with STM 217, we altered our STM 434 Phase 1 clinical trial protocol to exclude patients at heightened risk of bleeding and enhance the monitoring of patients for bleeding or increased risk for bleeding. These changes were also shared with the FDA.

Phase 1 Clinical Trial in Ovarian Cancer and Other Solid Tumors

We commenced an open-label Phase 1 clinical trial of STM 434 in 2014 that will enroll approximately 70 patients. The initial dosing schedule for this trial was once every four weeks. This trial is being conducted in three parts:

- ***Part 1*** — Dose escalation trial in patients with advanced solid tumors. Dosing initiated at 0.25 mg/kg. We plan to test up to the maximum tolerated dose, or MTD. Assuming no MTD is reached, we will test ascending doses of STM 434.
- ***Part 2*** — Designed to obtain additional safety and exploratory efficacy data in patients with advanced ovarian cancer, including clear and granulosa cell tumors.
- ***Part 3*** — Designed to study STM 434 in combination with chemotherapy in patients with ovarian cancer who have received prior treatment.

The objectives for our Phase 1 clinical trial are: to test if STM 434 monotherapy is safe and well tolerated; to obtain preliminary efficacy data in ovarian cancer and other solid tumors; to assess safety and preliminary efficacy of STM 434 with liposomal doxorubicin chemotherapy or the current standard of care; and to explore biomarkers predictive of response to treatment. Further objectives include collecting pharmacokinetic data during therapy with STM 434 and defining the recommended Phase 2 dose.

Since initiating this trial in October 2014, we have continued to dose and enroll patients. Bleeding has been observed in a subset of patients. Some of these bleeding events were deemed by the treating investigators to be possibly related to treatment with STM 434. Following review of these events by the safety committee, consisting of the trial sponsor and the trial investigators, the associated doses were deemed safe and well tolerated, and the trial is continuing at escalating doses.

Based on data supporting the role of activin in the progression of other solid tumors and the inclusion criteria, we expect that a number of patients included in the dose escalation portion of the Phase 1 clinical trial will have solid tumors in organs other than the ovary. Other tumors may include pancreas, stomach and kidney tumors, where there is a high correlation between Activin A upregulation and the severity and outcome of disease. We expect to release initial data from this Phase 1 clinical trial in the first half of 2016.

Biomarker Approach

Activin expression is one of a few biomarkers associated with severity in a variety of tumors including ovarian tumors. For this reason, Activin A is one of 12 genes that are measured in colon cancer as part of the clinically validated OncotypeDX® colon cancer panel. Our Phase 1 clinical trial is testing whether high levels of Activin A measured at baseline before patients receive STM 434 predict whether they respond to treatment. If levels of Activin A can predict response, this biomarker may be valuable in late-phase trials to improve the trial design and maximize the proportion of patients who respond to STM 434.

In addition, we will be measuring follicle-stimulating hormone, or FSH, levels using a routine laboratory test, to determine the inhibition of activin by STM 434. It is well established that activin negatively regulates FSH, and we therefore can use FSH reduction as a surrogate for activin inhibition. We also plan to conduct ARID1A and FOXL2 mutation testing in our Phase 1 clinical trial. These mutations have been associated with tumor proliferation.

PINTA 745 for PEW in ESRD

In December 2015, we announced results from the a Phase 2 proof-of-concept clinical trial for PINTA 745, a molecularly targeted product candidate, for the treatment of protein energy wasting in patients with end stage renal disease. The trial did not meet its primary endpoint, defined as the percent change from baseline in lean body mass as measured by dual energy x-ray absorptiometry at week 12 following weekly treatment with PINTA 745. PINTA 745 also did not improve physical function, measures of glycemic control and markers of inflammation. There were no treatment related serious adverse events observed in the trial. We intend to complete the trial as designed; however, as a consequence of these results, we have suspended further clinical development of PINTA 745.

Molecularly Targeted Product Candidate Pipeline

Our molecularly targeted product candidate pipeline currently consists of five product candidates that were licensed from Amgen in addition to STM 434. The product candidates in this portfolio are closely related to one another in terms of the biology and align with our in-house expertise regarding development, manufacturing, intellectual property strategy and other critical activities. These products share association with the TGF-ß superfamily of growth factors. At the same time, they represent distinct modes of intervention with potentially different therapeutic applications. These distinctions relate to target specificity, pharmacokinetic/pharmacodynamic relationships and modality. We believe these product candidates have unique characteristics, and, in some cases, demonstrated activity in preclinical studies, which would make them attractive candidates for various indications, including cancer cachexia, a condition that is implicated in up to 30% of cancer deaths with limited existing treatments. We are evaluating these product candidates to determine the best path forward taking into account the results from the PINTA 745 Phase 2 proof-of-concept trial. Where appropriate, we intend to conduct preclinical studies and file IND applications with regulatory authorities for these candidates.

Our molecularly targeted product candidate pipeline licensed from Amgen includes the following:

- *ATA 777*, a fully human antibody targeting Activin A, which we believe will be well suited for non-oncology indications where chronic dosing and specificity to Activin A is beneficial;
- *ATA M43*, a fully human anti-ActR2A/2B monoclonal antibody with high affinity to both receptors that is mechanistically similar to programs targeting muscle wasting diseases;
- *STM 217*, a soluble ActR2B receptor-IgG Fc fusion protein and a close analog of STM 434; and
- *ActR2B5*, a soluble ActR2B receptor that can be fused to an IgG Fc receptor; and
- *ATA 842*, a humanized antibody targeting myostatin, designed to be more selective than similar programs in the clinic targeting oncologic, orthopedic and renal indications.

Competition

The biotechnology and pharmaceutical industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. While we believe that our innovative technology, knowledge, experience and scientific resources provide us with competitive advantages, we face potential competition from many different sources, including major pharmaceutical, specialty pharmaceutical and biotechnology companies, academic institutions and public and private research institutions. Some of these potential competitors may have a more established presence in the market and significantly greater financial, technical and human resources than we have. Our commercial opportunity will be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer side effects or are less expensive than any products that we may develop.

T-Cell Product Candidates

Should our T-cell product candidates be approved for use, we will face substantial competition. In addition to the current standard of care for patients, commercial and academic clinical trials are being pursued by a number of parties in the field of immunotherapy. Early results from these trials have fueled continued interest in immunotherapy. In addition, if approved, our T-cell programs would compete with currently marketed drugs and therapies used for treatment of the following indications, and potentially with drug candidates currently in development for the same indications.

EBV-PTLD

There are currently no FDA or EMA approved products for the treatment of EBV-PTLD. However, some approved products and therapies are currently used off-label in this setting, and a number of companies and academic institutions that may license therapies to companies in the future are or may be developing new treatments. These therapies, as well as promotional efforts by competitors and clinical trial results of competitive products, could significantly diminish any ability to market and sell EBV-CTL. The current treatment for EBV-PTLD involves administration of rituximab as a single agent or in the SOT setting, in combination with chemotherapy regimens. Additionally, a number of companies and academic institutions are developing drug candidates for EBV-PTLD, including Cell Medica Ltd., or Cell Medica, which is conducting Phase 2 clinical trials for Cytorex EBV, an autologous EBV specific T-cell therapy, in NK/T-cell lymphoma.

CMV Infection

There are numerous approved products and therapies for the treatment of CMV infection, and a number of companies and academic institutions that may license therapies to companies in the future are or may be developing new treatments for CMV infection. These therapies, as well as promotional efforts by competitors and clinical trial results of competitive products, could significantly diminish any ability to market and sell the CMV-CTL. Drug therapies approved or commonly used for CMV infection include antiviral compounds such as ganciclovir, valganciclovir, cidofovir or foscarnet.

Additionally, a number of companies and academic institutions are developing drug candidates for CMV infection and other CMV-associated diseases, including Shire plc, or Shire, which has completed Phase 2 clinical trials of maribavir, a UL97 protein kinase inhibitor; Merck & Co., Inc., or Merck, which is conducting Phase 3 clinical trials of letermovir, a CMV terminase inhibitor; Vical Inc., or Vical, which is conducting Phase 3 clinical trials for ASP0113, a bivalent plasma DNA CMV vaccine; and ViraCyte, which is conducting Phase 1 clinical trials for Viralym-C, a CMV-specific third party cell therapy product. Chimerix, Inc., or Chimerix, recently announced that brincidofovir, a lipid conjugated nucleotide analogue of cidofovir, did not meet the primary endpoints of its Phase 3 trials for the prevention of CMV infection in hematopoietic stem cell transplant recipients.

Multiple Myeloma including Plasma Cell Leukemia

Several products are approved for the treatment of relapsed or refractory multiple myeloma, including Kyprolis (marketed by Amgen Inc.), Revlimid and Pomalyst (marketed by Celgene Corporation), Velcade (marketed by Millennium Pharmaceuticals, Inc.) and Darzalex® (marketed by Janssen Research & Development, LLC). In addition, a number of companies and institutions are developing drug candidates for relapsed or refractory multiple myeloma, including: AB Science SA, which is conducting a Phase 3 clinical trial for masitinib, a tyrosine kinase inhibitor; and Adaptimmune Therapeutics PLC, which is conducting Phase 1 / 2 clinical trials for a TCR candidate targeting NY-ESO-1.

Molecularly Targeted Product Candidates

If approved, STM 434 would compete with currently marketed drugs and therapies used for treatment of the following indications, and potentially with drug candidates currently in development for the same indications.

Ovarian Cancer

There are numerous approved products and therapies for ovarian cancer, and a number of companies are or may be developing new treatments for ovarian cancer and other solid tumors. These therapies, as well as promotional efforts by competitors and clinical trial results of competitive products, could significantly diminish any ability to market and sell STM 434. Approved drug therapies for ovarian cancer include chemotherapy with platinum compounds such as cisplatin or carboplatin and taxane compounds such as paclitaxel or docetaxel; bevacizumab in combination with chemotherapy compound such as liposomal, doxorubicin, paclitaxel or topotecan; olaparib in patients with deleterious or suspected deleterious germline BRCA mutated advanced ovarian cancer who have been treated with three or more prior lines of chemotherapy; and hormone therapies including goserelin, leuprolide, tamoxifen, letrozole, anastrozole and exemestane.

We are aware of other companies engaged in clinical development of compounds for treatment of ovarian cancer. These include:

- PARP inhibitors such as Tesaro, Inc.'s niraparib;
- angiogenesis inhibitors, such as F. Hoffman-La Roche's bevacizumab (Avastin);
- VEGFr tyrosine kinase inhibitors such as Boehringer Ingelheim GmbH's nintedanib and AstraZeneca plc's recentin;
- selective 17,20-lyase inhibitors such as Takeda Pharmaceutical Co. Ltd.'s TAK-700;
- anti-folates such as Eisai Co. Ltd.'s farletuzumab; and
- other therapies in development, including those from GlaxoSmithKline plc, Amgen and Clovis Oncology, Inc.

License Agreements

MSK Option and License Agreement

In September 2014, we entered into an exclusive option agreement with MSK under which we acquired the right to exclusively license from MSK the worldwide rights to three clinical stage T-cell programs. The initial option period was for 12 months. In exchange for the exclusive option, we paid MSK $1.25 million in cash and issued 59,761 shares of our common stock to MSK. We and MSK also agreed to collaborate on further research to develop additional cellular therapies, which may include T-cell programs targeted against other antigens and/or CAR-T, and which we also would hold an option to license, if developed.

In June 2015, we exercised the option and entered into a license agreement with MSK. Under the terms of the license agreement, MSK granted us a worldwide, exclusive license under certain patent rights, know-how and a library of T-cells and cell lines, to research, develop, manufacture and commercialize T-cell products specific to CMV, EBV or WT1 that comprise or are based on or made using such licensed rights. MSK also agreed to transfer certain INDs related to the licensed products to us. We have agreed to use commercially reasonable efforts to commercialize the licensed products and, if commercialized, continue active marketing efforts for any commercialized licensed product through the term of the license agreement.

In connection with the option exercise and the execution of the license agreement, we made an upfront cash payment to MSK of $4.5 million. We are obligated to make additional milestone payments of up to $33.0 million with respect to the three licensed clinical stage T-cell programs based on achievement of specified development, regulatory and sales-related milestones. We are also required to make escalating mid to high single-digit royalty payments to MSK based on sales of any licensed products. In addition, under certain circumstances, we must make certain minimum annual royalty payments to MSK, which are creditable against earned royalties owed for the same annual period. We are also obligated to pay a low double-digit percentage of consideration we receive for sublicensing the licensed rights.

The license agreement expires for each licensed T-cell product on a licensed product-by-licensed product basis and a country-by-country basis, on the latest of: (i) expiration of the last licensed patent rights related to such licensed product in such country, (ii) expiration of any market exclusivity period granted by law with respect to such licensed product in such country, and (iii) a specified number of years after the first commercial sale of the licensed product in such country. Upon expiration of the license agreement, the licenses granted to us will become non-exclusive royalty-free, perpetual and irrevocable. MSK may terminate the license agreement if we materially breach the agreement and does not cure such breach within a specified period or if we experience certain insolvency events.

Amgen License Agreements

In September 2012, we entered into two license agreements with Amgen under which Amgen granted us worldwide exclusive licenses under certain Amgen patent rights and regulatory filings, and non-exclusive licenses under certain Amgen know-how, to

develop and commercialize products comprising certain of Amgen's proprietary compounds known as AMG 777, AMG 434, AMG 217, ActR2B5, AMG 842 and M43. We now refer to AMG 777 as ATA 777, AMG 434 as STM 434, AMG 217 as STM 217 and AMG 842 as ATA 842. We have the right, subject to certain limitations, to grant sublicenses under such licensed intellectual property, in connection with licensing the covered products.

Under both of these license agreements, we are responsible for the worldwide development and commercialization of the licensed products, at our cost, are required to use commercially reasonable efforts with respect to such development and commercialization activities, and must meet certain specific diligence obligations. In exchange for these licenses, we issued 410,256 shares of Series A-1 convertible preferred stock. Each of the 410,256 shares of Series A-1 convertible preferred stock converted into one share of common stock immediately prior to completion of our initial public offering. We are obligated to make payments to Amgen upon the achievement of certain development and commercialization milestones totaling up to $81.5 million for each license agreement**,** as well as escalating low to mid-single-digit royalties based on sales of the licensed products by us, our affiliates or our sublicensees. We hold the first right to file, prosecute, maintain and enforce all licensed rights under these licenses throughout the world, and Amgen retains certain step-in rights.

Both license agreements with Amgen, unless terminated earlier, will continue on a country-by-country basis until the expiration of the last to expire of all royalty obligations we owe to Amgen, which will occur on the later of (a) the date on which exploitation of a licensed product is no longer covered by a valid claim of a patent under the agreement which covers the product in an applicable country, (b) the loss of regulatory exclusivity in such country, or (c) 10 years after the first commercial sale of the applicable licensed product in such country. Upon expiration of each agreement, we retain non-exclusive rights to the relevant licensed Amgen intellectual property. Amgen may terminate either agreement if we materially breach the agreement and do not cure such breach in a specified notice period, for a failure of our specified diligence obligations, if we experience certain insolvency events, or if we or our sublicensee challenge the patentability, validity or enforceability of any of the Amgen patents licensed under the applicable agreement. We may terminate each agreement for Amgen's uncured material breach, or if our board of directors concludes that, due to safety, efficacy, marketability, patent coverage or competition concerns, the development or commercialization of the relevant licensed product is no longer commercially practicable for us.

Intellectual Property

Patents

Our commercial success depends in part on our ability to obtain and maintain proprietary protection for our product candidates, to operate without infringing on the proprietary rights of others and to prevent others from infringing our proprietary rights. Our policy is to seek to protect our proprietary position by, among other methods, filing US and non-US patent applications related to our proprietary technology, inventions and improvements that are important to the development and implementation of our business. We also rely on trade secrets, know-how, continuing technological innovation and potential in-licensing opportunities to develop and maintain our proprietary position. Additionally, we expect to benefit from a variety of statutory frameworks in the United States, Europe and other countries that relate to the regulation of biosimilar molecules and orphan drug status. These statutory frameworks provide certain periods of regulatory exclusivity for qualifying molecules. See "Government Regulation."

We seek composition-of-matter and method-of-treatment patents for each of our product candidates in key therapeutic areas.

Our in-licensed and proprietary patent estate, on a worldwide basis, is very large and consists of over 100 issued patents and 200 pending patent applications. These figures include in-licensed patents and patent applications to which we generally hold exclusive commercial rights.

Individual patents extend for varying periods of time depending on the date of filing of the patent application, the priority date claimed and the legal term of patents as determined by the applicable law in the countries in which those patents are obtained.

Generally, patents issued from applications filed in the United States are effective for 20 years from the earliest non-provisional filing date. In addition, in certain instances, a patent term can be extended to recapture a portion of the term effectively lost as a result of the FDA regulatory review period; however, the restoration period cannot be longer than five years and the total patent term including the restoration period must not exceed 14 years following FDA approval. In addition, patent term adjustments can extend term to account for certain delays by the U.S. Patent and Trademark Office, or USPTO, during prosecution before that office. The duration of non-US patents varies in accordance with provisions of applicable local law, but typically, a patent's life is 20 years from the earliest international filing date. Our licensed, issued US patents are expected to expire on dates ranging from 2027 to 2029, and our licensed issued non-US patents are expected to expire on dates ranging from 2023 to 2029, exclusive of possible patent term extensions. Our pending owned and licensed applications with respect to our product candidates, if issued, are expected to expire, as to applications filed in the United States, on dates ranging from 2023 to 2035, and, as to applications filed in jurisdictions outside the

United States, on dates ranging from 2023 to 2035, exclusive of possible patent term extensions or adjustments. However, the actual protection afforded by a patent varies on a product- by-product basis, from country to country and depends upon many factors, including the type of patent, the scope of its coverage, the availability of extensions of patent term, the availability of legal remedies in a particular country and the validity and enforceability of the patent.

National and international patent laws concerning protein-based biologics such as our products remain highly unsettled. No consistent policy regarding the patent-eligibility or the breadth of claims allowed in such patents has emerged to date among the United States, Europe and other countries. Changes in either the patent laws or in interpretations of patent laws in the United States and other countries can diminish our ability to protect our inventions and enforce our intellectual property rights. Accordingly, we cannot predict the breadth or enforceability of claims that may be granted in our patents or in third-party patents. The biotechnology and pharmaceutical industries are characterized by extensive intellectual property litigation. Our ability to maintain and solidify our proprietary position for our product candidates and technology will depend on our success in obtaining effective claims for any patent and enforcing those claims once a patent is granted. We do not know whether any of the patent applications that we may file or license from third parties will result in the issuance of any patents. The issued patents that we own or may receive in the future may be challenged, invalidated or circumvented, and the rights granted under any issued patents may not provide us with sufficient protection or competitive advantages against competitors with similar technology. Furthermore, our competitors may independently develop and commercialize similar drugs or duplicate our technology, business model or strategy without infringing our patents. Because of the extensive time required for clinical development and regulatory review of any drug we may develop from our product candidates, it is possible that, before any of our drugs can be commercialized, any related patent may expire or remain in force for only a short period following commercialization, thereby reducing any advantage of any such patent. The patent positions for our product candidates are summarized below:

T-cell Technology Patent Portfolio

We hold exclusive rights to one pending US provisional patent application directed to EBV-CTL methods of use claims, one pending US provisional patent application directed to CMV-CTL method of use claims, and two pending US provisional patent applications directed to WT1-CTL method of use claims. In addition, we have exclusively licensed MSK's rights under two pending provisional applications directed to CMV-CTL method of use claims for treatment of CMV retinitis in HIV-infected patients and SOT recipients, which are co-owned by MSK and another entity from which we have not licensed rights. We also hold exclusive rights to one pending international patent application, one pending Argentine patent application, and one pending Taiwanese patent application, all directed to methods of identifying and selecting allogeneic T-cell lines for therapeutic use. The United States patent system permits the filing of provisional and non-provisional patent applications. A provisional patent application is not examined for patentability by the USPTO and automatically expires 12 months after its filing date. As a result, a provisional patent application cannot mature into a patent. Provisional patent applications are often used, among other things, to establish an early effective filing date for a later-filed non-provisional patent application. A non-provisional patent application is examined by the USPTO and can mature into a patent once the USPTO determines that the claimed invention meets the standards for patentability.

STM 434 Patent Portfolio

We hold exclusive rights to four issued US patents directed to STM 434 relating to composition-of-matter and related methods of use claims, and issued patents or pending patent applications related to STM 434 in many jurisdictions worldwide, including in the United States, Argentina, Australia, Brazil, Botswana, Canada, Chile, China, Colombia, Costa Rica, Algeria, the Eurasian Patent Office, Egypt, the European Patent Office, the Gulf Cooperation Council, Hong Kong, Indonesia, Israel, India, Jordan, Japan, the Republic of Korea, Libya, Morocco, Mexico, Malaysia, New Zealand, Peru, the Philippines, Singapore, South Africa, Tunisia, Taiwan, Ukraine and Vietnam. The expected expiration dates for these patents and patent applications range from 2026 to 2035, exclusive of possible patent term extensions or adjustments.

Trade Secrets

In addition to patents, we rely upon unpatented trade secrets and know-how and continuing technological innovation to develop and maintain our competitive position. We seek to protect our proprietary information, in part, using confidentiality agreements with our commercial partners, collaborators, employees and consultants and invention assignment agreements with our employees. These agreements are designed to protect our proprietary information and, in the case of the invention assignment agreements, to grant us ownership of technologies that are developed by an employee. These agreements may be breached, and we may not have adequate remedies for any such breach or any unauthorized disclosure of our proprietary information. In addition, our trade secrets may otherwise become known or be independently discovered by competitors. To the extent that our commercial partners, collaborators, employees and consultants use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions.

Government Regulation

Overview of US Government Regulation

The preclinical studies and clinical testing, manufacture, labeling, storage, recordkeeping, advertising, promotion, export, marketing and sales, among other things, of our product candidates are subject to extensive regulation by governmental authorities in the United States and other countries. In the United States, pharmaceutical products are regulated by the FDA under the Federal Food, Drug, and Cosmetic Act and other laws, including, in the case of biologics, the Public Health Service Act. We expect STM 434 to be regulated by the FDA as a biologic and to be reviewed by the Center for Drug Evaluation and Research. Protein therapeutics require the submission of a biologics license application, or BLA, and approval by the FDA prior to being marketed in the United States. Manufacturers of protein therapeutics may also be subject to state regulation.

Our T-cell product candidates, including EBV-CTL and CMV-CTL, are regulated by the FDA as biologics, reviewed by the Center for Biological Evaluation and Research, and will require the submission of BLAs and approval by the FDA prior to being marketed in the United States. For CTL trials conducted at, or sponsored by, institutions receiving NIH funding for recombinant DNA research, prior to the submission of an IND to the FDA, a protocol and related documents must be submitted to, and the study registered with, the NIH Office of Biotechnology Activities, or the OBA, pursuant to the NIH Guidelines for Research Involving Recombinant DNA Molecules, or the NIH Guidelines. Compliance with the NIH Guidelines is mandatory for investigators at institutions receiving NIH funds for research involving recombinant DNA. However, many companies and other institutions, not otherwise subject to the NIH Guidelines, voluntarily follow them. The NIH is responsible for convening the recombinant DNA advisory committee, or RAC, that discusses protocols that raise novel or particularly important scientific, safety or ethical considerations at one of its quarterly public meetings. The OBA will notify the FDA of the RAC's decision regarding the necessity for full public review of a protocol. RAC proceedings and reports are posted to the OBA website and may be accessed by the public.

Failure to comply with FDA requirements, both before and after product approval, may subject us or our partners, contract manufacturers, and suppliers to administrative or judicial sanctions, including FDA refusal to approve applications, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, fines and/or criminal prosecution.

The steps required before a biologic may be approved for marketing of an indication in the United States generally include:

- completion of preclinical laboratory tests, animal studies and formulation studies conducted according to good laboratory practices, or GLP, and other applicable regulations;
- submission to the FDA of an investigational new drug, or IND, application, which must become effective before human clinical trials may commence;
- completion of adequate and well-controlled human clinical trials in accordance with good clinical practices, or GCP, to establish that the biological product is "safe, pure and potent", which is analogous to the safety and efficacy approval standard for a chemical drug product for its intended use;
- submission to the FDA of a BLA;
- satisfactory completion of an FDA preapproval inspection of the manufacturing facility or facilities at which the product is produced to assess compliance with applicable current good manufacturing practices, or cGMP and in the case of our T-cell product candidates, good tissue practices, or GTP; and
- FDA review of the BLA and issuance of a biologics license.

Before conducting studies in humans, laboratory evaluation of product chemistry, toxicity and formulation as well as animal studies to assess the potential safety and efficacy of the biologic candidate must be conducted. Preclinical toxicology studies in animals must be conducted in compliance with FDA regulations. The results of the preclinical tests, together with manufacturing information and analytical data, are submitted to the FDA as part of an IND. Some preclinical testing may continue even after the IND is submitted. In addition to including the results of the preclinical testing, the IND will also include a protocol detailing, among other things, the objectives of the clinical trial, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated if the first phase or phases of the clinical trial lend themselves to an efficacy determination. The IND will automatically become effective 30 days after receipt by the FDA, unless the FDA within the 30-day time period places the IND on clinical hold because of safety concerns about the product candidate or the conduct of the trial described in the clinical protocol included in the IND. The IND sponsor and the FDA must resolve any outstanding concerns before clinical trials can proceed.

All clinical trials for new drugs and biologics must be conducted under the supervision of one or more qualified principal investigators in accordance with GCP. They must be conducted under protocols detailing the objectives of the applicable phase of the trial, dosing procedures, research subject selection and exclusion criteria and the safety and effectiveness criteria to be evaluated. Each protocol must be submitted to the FDA as part of the IND, and progress reports detailing the status of the clinical trials must be submitted to the FDA annually. Sponsors must also report to the FDA, within certain timeframes, serious and unexpected adverse

reactions, any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator's brochure, or any findings from other studies or animal or in vitro testing that suggest a significant risk in humans exposed to the product candidate. An institutional review board, or IRB, at each institution participating in the clinical trial must review and approve the protocol before a clinical trial commences at that institution, approve the information regarding the trial and the consent form that must be provided to each research subject or the subject's legal representative, and monitor the trial until completed.

Clinical trials are typically conducted in three sequential phases, but the phases may overlap and different trials may be initiated with the same product candidate within the same phase of development in similar or differing patient populations.

Phase 1 clinical studies may be conducted in a limited number of patients or healthy volunteers, as appropriate. The product candidate is initially tested for safety and, as appropriate, for absorption, metabolism, distribution, excretion, pharmacodynamics and pharmacokinetics.

Phase 2 usually involves trials in a larger, but still limited, patient population to evaluate preliminarily the efficacy of the product candidate for specific, targeted indications to determine dosage tolerance and optimal dosage and to identify possible short-term adverse effects and safety risks.

Phase 3 trials are undertaken to further evaluate clinical efficacy of a specific endpoint and to test further for safety within an expanded patient population at geographically dispersed clinical trial sites. Phase 1, Phase 2 or Phase 3 testing might not be completed successfully within any specific time period, if at all, with respect to any of our product candidates. Results from one trial are not necessarily predictive of results from later trials. Furthermore, the FDA or the sponsor may suspend clinical trials at any time on various grounds, including a finding that the subjects or patients are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the product candidate has been associated with unexpected serious harm to patients. A sponsor may request a Special Protocol Assessment, or SPA, the purpose of which is to reach agreement with the FDA on the Phase 3 clinical trial protocol design and analysis that will form the primary basis of an efficacy claim. An SPA request must be made before the proposed trial begins, and all open issues must be resolved before the trial begins for an SPA to be approved. Even if the FDA agrees to the design, execution and analyses proposed in protocols reviewed under the SPA process, the FDA may revoke or alter its agreement if public health concerns emerge that were unrecognized at the time of the protocol assessment or the FDA determines that a substantial scientific issue essential to determining safety or efficacy has been identified after testing has begun. An SPA does not guarantee that a trial will be successful or will in fact be accepted by FDA as sufficient for approval.

The results of the preclinical studies and clinical trials, together with other detailed information, including information on the manufacture and composition of the product, are submitted to the FDA as part of a BLA requesting approval to market the product candidate for a proposed indication. Under the Prescription Drug User Fee Act the fees payable to the FDA for reviewing a BLA, as well as annual fees for commercial manufacturing establishments and for approved products, can be substantial but are subject to certain limited deferrals, waivers and reductions that may be available. The fees typically increase each year. Each BLA submitted to the FDA for approval is reviewed for administrative completeness and reviewability within 60 days following receipt by the FDA of the application. If the BLA is found complete, the FDA will file the BLA, triggering a full review of the application. The FDA may refuse to file any BLA that it deems incomplete or not properly reviewable at the time of submission. The FDA's established goal is to review 90% of priority BLA applications within six months after the application is accepted for filing and 90% of standard BLA applications within 10 months of the acceptance date, whereupon a review decision is to be made. The FDA, however, may not approve a product candidate within these established goals and its review goals are subject to change from time to time. Further, the outcome of the review, even if generally favorable, may not be an actual approval but a "complete response letter" that describes additional work that must be done before the application can be approved. Before approving a BLA, the FDA may inspect the facility or facilities at which the product is manufactured and will not approve the product unless the facility complies with cGMP. The FDA may deny approval of a BLA if applicable statutory or regulatory criteria are not satisfied, or may require additional testing or information, which can extend the review process. FDA approval of any application may include many delays or never be granted. If a product is approved, the approval may impose limitations on the uses for which the product may be marketed, may require that warning statements be included in the product labeling, may require that additional studies be conducted following approval as a condition of the approval, and may impose restrictions and conditions on product distribution, prescribing, or dispensing in the form of a Risk Evaluation and Mitigation Strategy, or REMS, or otherwise limit the scope of any approval. The FDA must approve a BLA supplement or a new BLA before a product may be marketed for other uses or before certain manufacturing or other changes may be made. Further post-marketing testing and surveillance to monitor the safety or efficacy of a product is required. Also, product approvals may be withdrawn if compliance with regulatory standards is not maintained or if safety or manufacturing problems occur following initial marketing. In addition, new government requirements may be established that could delay or prevent regulatory approval of our product candidates under development.

Under the Biologics Price Competition and Innovation Act of 2009, or the BPCIA, a statutory pathway has been created for licensure, or approval, of biological products that are biosimilar to, and possibly interchangeable with, earlier biological products licensed under the Public Health Service Act. Also under the BPCIA, innovator manufacturers of original reference biological products are granted 12 years of exclusivity before biosimilars can be approved for marketing in the United States. The implementation of an abbreviated approval pathway for biological products is under the direction of the FDA and is currently being developed. The FDA has issued several draft guidances for industry related to the BPCIA, addressing scientific, quality and procedural issues relevant to an abbreviated application for a biosimilar product. The approval of a biologic product biosimilar to one of our products could have a material adverse impact on our business as it may be significantly less costly to bring to market and may be priced significantly lower than our products.

Both before and after the FDA approves a product, the manufacturer and the holder or holders of the BLA for the product are subject to comprehensive regulatory oversight. For example, quality control and manufacturing procedures must conform, on an ongoing basis, to cGMP and GTP requirements, as applicable and the FDA periodically inspects manufacturing facilities to assess compliance with these standards. Accordingly, manufacturers must continue to spend time, money and effort to maintain compliance.

Orphan Drug Act

The Orphan Drug Act provides incentives to manufacturers to develop and market drugs for rare diseases and conditions affecting fewer than 200,000 persons in the United States at the time of application for orphan drug designation. Orphan drug designation must be requested before submitting a BLA. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process. If a product that has orphan drug designation subsequently receives the first FDA approval for the disease for which it has such designation, the holder of the approval is entitled to a seven-year exclusive marketing period in the United States for that product except in very limited circumstances. For example, a drug that the FDA considers to be clinically superior to, or different from, another approved orphan drug, even though for the same indication, may also obtain approval in the United States during the seven-year exclusive marketing period. In addition, holders of exclusivity for orphan drugs are expected to assure the availability of sufficient quantities of their orphan drugs to meet the needs of patients. Failure to do so could result in the withdrawal of marketing exclusivity for the drug.

Legislation similar to the Orphan Drug Act has been enacted outside the United States, including in the EU. The orphan legislation in the EU is available for therapies addressing chronic debilitating or life-threatening conditions that affect five or fewer out of 10,000 persons or are financially not viable to develop. The market exclusivity period is for ten years, although that period can be reduced to six years if, at the end of the fifth year, available evidence establishes that the product is sufficiently profitable not to justify maintenance of market exclusivity. The market exclusivity may be extended to 12 years if the sponsor completes a pediatric investigation plan agreed upon with the relevant committee of the EMA.

Expedited Review and Approval

The FDA has various programs, including Fast Track, priority review and accelerated approval, which are intended to expedite or simplify the process for developing and reviewing promising drugs, or to provide for the approval of a drug on the basis of a surrogate endpoint. Even if a drug qualifies for one or more of these programs, the FDA may later decide that the drug no longer meets the conditions for qualification or that the time period for FDA review or approval will be shortened. Generally, drugs that are eligible for these programs are those for serious or life-threatening conditions, those with the potential to address unmet medical needs and those that offer meaningful benefits over existing treatments. For example, Fast Track is a process designed to facilitate the development and expedite the review of drugs to treat serious or life-threatening diseases or conditions and fill unmet medical needs. Priority review is designed to give drugs that offer major advances in treatment or provide a treatment where no adequate therapy exists an initial review within six months as compared to a standard review time of 10 months. Although Fast Track and priority review do not affect the standards for approval, the FDA will attempt to facilitate early and frequent meetings with a sponsor of a Fast Track designated drug and expedite review of the application for a drug designated for priority review. Accelerated approval provides for an earlier approval for a new drug that is intended to treat a serious or life-threatening disease or condition and that fills an unmet medical need based on a surrogate endpoint. A surrogate endpoint is a laboratory measurement or physical sign used as an indirect or substitute measurement representing a clinically meaningful outcome. As a condition of approval, the FDA may require that a sponsor of a product candidate receiving accelerated approval perform post-marketing clinical trials to confirm the clinically meaningful outcome as predicted by the surrogate marker trial.

In addition to the Fast Track, accelerated approval and priority review programs discussed above, the FDA also provided guidance on breakthrough therapy designation. A breakthrough therapy is defined as a drug that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. Drugs designated as breakthrough therapies are also eligible for

accelerated approval. The FDA will seek to ensure the sponsor of a breakthrough therapy product candidate receives: intensive guidance on an efficient drug development program; intensive involvement of senior managers and experienced staff on a proactive, collaborative and cross-disciplinary review; and rolling review.

Companion Diagnostics

If levels of Activin A can predict response, this companion diagnostic biomarker may be valuable in late-phase trials to improve the trial design and maximize the proportion of patients who respond to STM 434. Companion diagnostics are regulated as medical devices. Diagnostic tests require marketing clearance or approval from the FDA prior to commercial distribution. If use of companion diagnostic is essential to safe and effective use of a drug or biologic product, then the FDA generally will require approval or clearance of the diagnostic contemporaneously with the approval of the therapeutic product. The FDA has generally required companion diagnostics intended to select the patients who will respond to cancer treatment to obtain approval of a PMA for that diagnostic simultaneously with approval of the therapeutic. The review of these in vitro companion diagnostics in conjunction with the review of a cancer therapeutic involves coordination of review by the FDA's Center for Biologics Evaluation and Research and by the FDA's Center for Devices and Radiological Health.

Reimbursement

In both domestic and foreign markets, sales and reimbursement of any approved products will depend, in part, on the extent to which the costs of such products will be covered by third-party payors, such as government health programs, commercial insurance and managed healthcare organizations. These third-party payors are increasingly challenging the prices charged for medical products and services and imposing controls to manage costs. The containment of healthcare costs has become a priority of federal and state governments and the prices of drugs have been a focus in this effort. Governments have shown significant interest in implementing cost-containment programs, including price controls, restrictions on reimbursement and requirements for substitution of generic products. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit our net revenue and results. In addition, there is significant uncertainty regarding the reimbursement status of newly approved healthcare products. We may need to conduct expensive pharmacoeconomic studies in order to demonstrate the cost-effectiveness of our products. If third-party payors do not consider our products to be cost-effective compared to other therapies, the payors may not cover our products after approved as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow us to sell our products on a profitable basis.

Within the United States, if we obtain appropriate approval in the future to market any of our current product candidates, we may seek approval and coverage for those products under Medicaid, Medicare and the Public Health Service, or PHS, pharmaceutical pricing program and also seek to sell the products to federal agencies.

Medicaid is a joint federal and state program that is administered by the states for low income and disabled beneficiaries. Under the Medicaid Drug Rebate Program, manufacturers are required to pay a rebate for each unit of product reimbursed by the state Medicaid programs. The amount of the rebate for each product is set by law and may be subject to an additional discount if certain pricing increases more than inflation.

Medicare is a federal program administered by the federal government that covers individuals age 65 and over as well as those with certain disabilities. Medicare Part D provides coverage to enrolled Medicare patients for self-administered drugs (i.e., drugs that do not need to be administered by a physician). Medicare Part D is administered by private prescription drug plans approved by the US government and each drug plan establishes its own Medicare Part D formulary for prescription drug coverage and pricing, which the drug plan may modify from time-to-time.

Medicare Part B covers most injectable drugs given in an in-patient setting, and some drugs administered by a licensed medical provider in hospital outpatient departments and doctors' offices. Medicare Part B is administered by Medicare Administrative Contractors, which generally have the responsibility of making coverage decisions. Subject to certain payment adjustments and limits, Medicare generally pays for Part B covered drugs based on a percentage of manufacturer-reported average sales price.

Drug products are subject to discounted pricing when purchased by federal agencies via the Federal Supply Schedule, or FSS.

FFS participation is required for a drug product to be covered and paid for by certain federal agencies and for coverage under Medicaid, Medicare Part B and the PHS pharmaceutical pricing program. FSS pricing is negotiated periodically with the Department of Veterans Affairs. FSS pricing is intended to not exceed the price that a manufacturer charges its most-favored non-federal customer for its product. In addition, prices for drugs purchased by the Veterans Administration, Department of Defense (including drugs purchased by military personnel and dependents through the TRICARE retail pharmacy program), Coast Guard, and PHS are subject

to a cap on pricing (known as the "federal ceiling price") and may be subject to an additional discount if pricing increases more than inflation.

To maintain coverage of drugs under the Medicaid Drug Rebate Program, manufacturers are required to extend discounts to certain purchasers under the PHS pharmaceutical pricing program. Purchasers eligible for discounts include hospitals that serve a disproportionate share of financially needy patients, community health clinics and other entities that receive health services grants from the PHS.

The United States and state governments continue to propose and pass legislation designed to reduce the cost of healthcare. In March 2010, the United States Congress enacted the Patient Protection and Affordable Care Act and the Health Care and Education Reconciliation Act, or the Affordable Care Act, which included changes to the coverage and payment for drug products under government health care programs. Adoption of other new legislation at the federal or state level could further limit reimbursement for pharmaceuticals. Outside the United States, ensuring adequate coverage and payment for our products will face challenges. Pricing of prescription pharmaceuticals is subject to governmental control in many countries. Pricing negotiations with governmental authorities can extend well beyond the receipt of regulatory approval for a product and may require us to conduct a clinical trial that compares the cost effectiveness of our product candidates or products to other available therapies. The conduct of such a clinical trial could be expensive and result in delays in our commercialization efforts. Third-party payors are challenging the prices charged for medical products and services, and many third-party payors limit reimbursement for newly-approved health care products. Recent budgetary pressures in many European Union countries are also causing governments to consider or implement various cost-containment measures, such as price freezes, increased price cuts and rebates. If budget pressures continue, governments may implement additional cost-containment measures. Cost-control initiatives could decrease the price we might establish for products that we may develop or sell, which would result in lower product revenues or royalties payable to us. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our products.

Foreign Regulation

In addition to regulations in the United States, we expect to be subject to a variety of foreign regulations governing clinical trials and commercial sales and distribution of our product candidates. Whether or not we obtain FDA approval for a product candidate, we must obtain approval from the comparable regulatory authorities of foreign countries or economic areas, such as the European Union, before we may commence clinical trials or market products in those countries or areas. The approval process and requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary greatly from place to place, and the time may be longer or shorter than that required for FDA approval.

Certain countries outside of the United States have a process that requires the submission of a clinical trial application, or CTA, much like an IND prior to the commencement of human clinical trials. In Europe, for example, a CTA must be submitted to the competent national health authority and to independent ethics committees in each country in which a company intends to conduct clinical trials. Once the CTA is approved in accordance with a country's requirements, clinical trial development may proceed in that country. In all cases, the clinical trials must be conducted in accordance with GCP and other applicable regulatory requirements.

Under European Union regulatory systems, a company may submit marketing authorization applications either under a centralized or decentralized procedure. The centralized procedure is compulsory for medicinal products produced by biotechnology or those medicinal products containing new active substances for specific indications such as the treatment of AIDS, cancer, neurodegenerative disorders, diabetes, viral diseases and designated orphan medicines, and optional for other medicines which are highly innovative. Under the centralized procedure, a marketing application is submitted to the European Medicines Agency where it will be evaluated by the Committee for Medicinal Products for Human Use and a favorable opinion typically results in the grant by the European Commission of a single marketing authorization that is valid for all European Union member states within 67 days of receipt of the opinion. The initial marketing authorization is valid for five years, but once renewed is usually valid for an unlimited period.

As in the United States, we may apply for designation of a product as an orphan drug for the treatment of a specific indication in the European Union before the application for marketing authorization is made. Orphan drugs in Europe enjoy economic and marketing benefits, including up to 11 years of exclusivity for the approved indication unless another applicant can show that its product is safer, more effective or otherwise clinically superior to the orphan designated product.

Additional Regulation

We are also subject to regulation under the Occupational Safety and Health Act, the Environmental Protection Act, the Toxic Substances Control Act, the Resource Conservation and Recovery Act and other present and potential federal, state or local regulations. These and other laws govern our use, handling and disposal of various biological and chemical substances used in, and

waste generated by, our operations. Our research and development involves the controlled use of hazardous materials, chemicals and viruses. Although we believe that our safety procedures for handling and disposing of such materials comply with the standards prescribed by state and federal regulations, the risk of accidental contamination or injury from these materials cannot be completely eliminated. In the event of such an accident, we could be held liable for any damages that result and any such liability could exceed our resources.

There have been a number of federal and state proposals during the last few years regarding the pricing of pharmaceutical and biological products, government control and other changes to the healthcare system of the United States. It is uncertain what legislative proposals will be adopted or what actions federal, state or private payers for medical goods and services may take in response to any healthcare reform proposals or legislation. We cannot predict the effect medical or healthcare reforms may have on our business, and no assurance can be given that any such reforms will not have a material adverse effect.

Manufacturing

Our initial strategy is to outsource the manufacturing of drug substance and drug product for our preclinical studies and clinical trials. We also outsource fill-finish, packaging, labeling, storage, shipping and distribution. This allows us to rapidly conduct manufacturing activities for multiple programs in parallel. It also allows us to balance the requirements of multiple programs and avoid costly investment in manufacturing infrastructure and personnel before clinical data are available. Our internal capabilities and experience in the manufacturing of protein therapeutics encompass a broad range of activities including cell line development, process development, analytical development, formulation development, clinical and commercial scale GMP manufacturing, quality control and quality assurance. We have less substantial internal technical expertise in the manufacture of cellular therapeutics; however, we are currently building those capabilities through our ongoing hiring activities. This breadth of experience allows us to effectively oversee and direct the activities of our contract manufacturers and testing facilities. In selecting contract manufacturing organizations, or CMOs, to manufacture our product candidates, we generally strive to select the CMO based on the particular technical needs of the product candidate. In addition, we aim to work with CMOs that possess the requisite scale, expertise and experience to support clinical as well as commercial product manufacturing. Although this approach, when coupled with the range of CMO capabilities, requires us to utilize multiple CMOs in the manufacturing of our product candidates, we believe it may also mitigate the need for costly and time-consuming process transfers later in development. Ultimately, we believe that our outsourced model and approach to CMO management will allow us to efficiently scale our manufacturing processes to support our current clinical development programs and the potential commercialization of our product candidates. As our product candidates progress towards potential marketing approvals, we may choose to build or acquire through other means our own manufacturing facilities in order to maintain more substantial control over our supply chain.

Our EBV and CMV-CTL product candidates require blood from healthy, consenting third-party donors as starting materials. The manufacturing process involves co-culturing and incubating viral or cancer specific antigen transformed B-cells collected from the blood of third party-donors with T-cells collected from the same donor, all under GTPs. GTPs are FDA regulations and guidance documents that govern the methods used in, and the facilities and controls used for, the manufacture of human cells, tissues and cellular and tissue based products, or HCT/Ps, which are human cells or tissue intended for implantation, transplant, infusion or transfer into a human recipient. The primary intent of the GTP requirements is to ensure that cell and tissue based products are manufactured in a manner designed to prevent the introduction, transmission and spread of communicable disease. FDA regulations also require tissue establishments to register and list their HCT/Ps with the FDA and, when applicable, to evaluate donors through screening and testing.

Pursuant to our June 2015 license agreement with MSK, we acquired the right to use certain manufacturing process know-how related to producing clinical research-related drug supply. This included materials to support the manufacturing of clinical trial material including key starting materials and intermediates as well as existing inventory of clinical trial materials. We have entered into an agreement with a CMO to develop and manufacture our EBV-CTL. We are currently in the process of transferring the manufacturing processes from MSK to our CMO. We have also entered into a supply agreement with a third party to ensure we have the necessary blood donated from healthy consenting third-party donors. The transfer of manufacturing processes to our CMO will include modifications to the processes to suit the CMO’s facility and capability constraints, improvements in the manufacturing process as well as product comparability testing. Moreover, we will also need to develop commercial-scale manufacturing processes for the EBV-CTLs for the planned pivotal trials, with the proposed dose and schedule to be used in clinical practice and at a cost sufficient to support profitable commercialization. We and our CMOs may be required to make further investments to manufacture product for commercialization, including potentially the construction or acquisition of a wholly-owned manufacturing facility. Our other T-cell product candidates are currently manufactured by MSK using readily available raw materials and established manufacturing procedures.

Our lead molecularly targeted product candidate, STM 434, is manufactured using readily available raw materials and established manufacturing procedures. STM 434 is produced in bioreactors using hamster ovary cells that have been genetically

engineered to produce this specific product candidate. All of our other molecularly targeted product candidates, other than PINTA 745, will also be produced in bioreactors using mammalian cells.

Concurrent with the license of our existing molecularly targeted product candidates from Amgen, we acquired certain manufacturing process know-how related to producing clinical research-related drug supply. In the case of STM 434, this included GMP materials to support the manufacturing of clinical trial material. We have already transferred the downstream elements of the STM 434 manufacturing process to a CMO, and we have initiated transfer of the upstream components of the STM 434 manufacturing process to a CMO. We are also developing a refrigerated liquid formulation of the STM 434 drug product. We and our CMOs will be required to make further investments to manufacture product for pivotal studies, as well as for commercialization, including potentially the construction or acquisition of a wholly-owned manufacturing facility. In the case of our earlier stage molecularly targeted product candidates, this know-how was more limited in scope, as these product candidates were pre-master cell bank in stage of development at the time of licensing.

Employees

As of February 15, 2016, we had 55 employees. All of our personnel are co-employees of Atara and TriNet, a professional human resource service organization. Under our agreement with TriNet, TriNet is a co-employer of our personnel, and is responsible for administering all payroll functions, including tax withholding, and providing health insurance and other benefits for these individuals. We reimburse TriNet for these costs and pay TriNet a fee for its services. We are responsible for, and control, all aspects of the hiring, retention, compensation, management and supervision of our personnel. We consider the terms of our contract with TriNet to be reasonable and customary and believe this arrangement provides substantial benefit to us, in the form of lower costs for employee benefits and reduced administrative burden on us.

Corporate Information

We were incorporated in Delaware in 2012 and completed our initial public offering in October 2014. Our principal corporate offices are located at 701 Gateway Blvd., Suite 200, South San Francisco, CA 94080 and our telephone number at that address is (650) 278-8930.

Available Information

Our website address is www.atarabio.com. We file Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, proxy statements and other materials with the SEC. We are subject to the informational requirements of the Exchange Act and file or furnish reports, proxy statements, and other information with the SEC. Such reports and other information filed by the Company with the SEC are available free of charge on our website at investors.atarabio.com.

The public may also read and copy any materials filed by Atara with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Room 1580, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a website that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC at www.sec.gov.

Item 1A. Risk Factors

Investing in our common stock involves a high degree of risk. You should carefully consider all of the risk factors and uncertainties described below, in addition to the other information contained in this Annual Report on Form 10-K, including the section of this report titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated and combined financial statements and related notes, before investing in our common stock. If any of the following risks materialize, our business, financial condition and results of operations could be seriously harmed. In these circumstances, the market price of our common stock could decline, and you may lose all or a part of your investment.

Risks Related to Our Financial Results and Capital Needs

We have incurred substantial losses since our inception and anticipate that we will continue to incur substantial and increasing losses for the foreseeable future.

We are a clinical-stage biopharmaceutical company. Investment in biopharmaceutical product development is highly speculative because it entails substantial upfront capital expenditures and significant risk that a product candidate will fail to prove effective, gain regulatory approval or become commercially viable. We do not have any products approved by regulatory authorities and have not generated any revenues from product sales to date, and have incurred significant research, development and other expenses related to our ongoing operations and expect to continue to incur such expenses. As a result, we have not been profitable and have incurred significant operating losses in every reporting period since our inception. For the year ended December 31, 2015, we reported a net loss of $57.2 million and we had an accumulated deficit of $98.1 million as of December 31, 2015.

We do not expect to generate revenues for many years, if at all. We expect to continue to incur significant expenses and operating losses for the foreseeable future. We anticipate these losses to increase as we continue to research, develop and seek regulatory approvals for our product candidates and any additional product candidates we may acquire, and potentially begin to commercialize product candidates that may achieve regulatory approval. We may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. The size of our future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate revenues. If any of our product candidates fails in clinical trials or does not gain regulatory approval, or if approved, fails to achieve market acceptance, we may never become profitable. Even if we achieve profitability in the future, we may not be able to sustain profitability in subsequent periods. We anticipate that our expenses will increase in the future as we continue to invest in research and development of our existing product candidates, investigate and potentially acquire new product candidates and expand our manufacturing and commercialization activities.

We have a limited operating history, which may make it difficult for you to evaluate the success of our business to date and to assess our future viability.

Our company was formed in August 2012. Our operations to date have been limited to organizing and staffing our company, acquiring product and technology rights and conducting product development activities for our product candidates. We have not yet demonstrated our ability to successfully complete any Phase 2 or Phase 3 clinical trials, obtain regulatory approval, manufacture a commercial scale product or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful commercialization for any of our product candidates. In addition, the adoptive immunotherapy technology underlying our T-cell product candidates, EBV-CTL, CMV-CTL and WT1-CTL, is new and largely unproven. Any predictions about our future success, performance or viability, particularly in view of the rapidly evolving cancer immunotherapy field, may not be as accurate as they could be if we had a longer operating history or approved products on the market.

In addition, as a young business, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown factors. We will need to transition at some point from a company with a research and development focus to a company capable of supporting commercial activities. We may not be successful in such a transition. We expect our financial condition and operating results to continue to fluctuate significantly from quarter to quarter and year to year due to a variety of factors, many of which are beyond our control. Accordingly, you should not rely upon the results of any quarterly or annual periods as indications of future operating performance.

We currently have no source of revenues. We may never generate revenues or achieve profitability.

To date, we have not generated any revenues from product sales or otherwise. Even if we are able to successfully achieve regulatory approval for our product candidates, we do not know when we will generate revenues or become profitable, if at all. Our ability to generate revenues from product sales and achieve profitability will depend on our ability to successfully commercialize products, including any of our current product candidates, and other product candidates that we may develop, in-license or acquire in the future. Our ability to generate revenues and achieve profitability also depends on a number of additional factors, including our ability to:

- successfully complete development activities, including the necessary clinical trials;
- complete and submit BLAs to the FDA and obtain US regulatory approval for indications for which there is a commercial market;
- complete and submit applications to, and obtain regulatory approval from, foreign regulatory authorities in Europe, Asia and other jurisdictions;
- obtain coverage and adequate reimbursement from third parties, including government and private payors;
- set commercially viable prices for our products, if any;
- establish and maintain supply and manufacturing relationships with reliable third parties and ensure adequate, legally compliant manufacturing of bulk drug substances and drug products to maintain that supply;
- develop manufacturing and distribution processes for our novel T-cell product candidates;
- obtain commercial quantities of our products at acceptable cost levels;
- achieve market acceptance of our products, if any;
- attract, hire and retain qualified personnel;
- protect our rights in our intellectual property portfolio;
- develop a commercial organization capable of sales, marketing and distribution for any products we intend to sell ourselves in the markets in which we choose to commercialize on our own; and
- find suitable distribution partners to help us market, sell and distribute our approved products in other markets.

Our revenues for any product candidate for which regulatory approval is obtained will be dependent, in part, upon the size of the markets in the territories for which we gain regulatory approval, the accepted price for the product, the ability to get reimbursement at any price, and whether we own the commercial rights for that territory. If the number of our addressable disease patients is not as significant as we estimate, the indication approved by regulatory authorities is narrower than we expect, or the reasonably accepted population for treatment is narrowed by competition, physician choice or treatment guidelines, we may not generate significant revenues from sales of such products, even if approved. In addition, we anticipate incurring significant costs associated with commercializing any approved product candidate. As a result, even if we generate revenues, we may not become profitable and may need to obtain additional funding to continue operations. If we fail to become profitable or are unable to sustain profitability on a continuing basis, then we may be unable to continue our operations at planned levels and may be forced to reduce our operations.

We will require substantial additional financing to achieve our goals, and a failure to obtain this necessary capital when needed could force us to delay, limit, reduce or terminate our product development or commercialization efforts.

We expect to expend substantial resources for the foreseeable future to continue the clinical development and manufacturing of EBV-CTL, CMV-CTL, WT1-CTL, STM 434 and the advancement and expansion of our preclinical research pipeline. We also expect to expend resources for the development and manufacturing of product candidates and the technology we recently licensed from another academic institution. These expenditures will include costs associated with research and development, potentially acquiring new product candidates or technologies, conducting preclinical studies and clinical trials and potentially obtaining regulatory approvals and manufacturing products, as well as marketing and selling products approved for sale, if any. Under the terms of our license agreements with Amgen and MSK, we are obligated to make payments of up to $85.0 million to Amgen and up to $9.0 million to MSK with respect to the three licensed clinical stage T-cell programs upon the achievement of certain development and regulatory approval milestones. We are also obligated to make payments for certain commercial milestones. In addition, other unanticipated costs may arise. Because the design and outcome of our planned and anticipated clinical trials is highly uncertain, we cannot reasonably estimate the actual amounts necessary to successfully complete the development and commercialization of our product candidates.

Our future capital requirements depend on many factors, including:

- the scope, progress, results and costs of researching and developing our product candidates, and conducting preclinical studies and clinical trials;
- the timing of, and the costs involved in, obtaining regulatory approvals for our product candidates if clinical trials are successful;
- the cost of commercialization activities for our product candidates, if any of these product candidates is approved for sale, including marketing, sales and distribution costs;
- the cost of manufacturing our product candidates for clinical trials in preparation for regulatory approval and in preparation for commercialization;
- our ability to establish and maintain strategic licensing or other arrangements and the financial terms of such agreements;
- the costs to in-license future product candidates or technologies;
- the costs involved in preparing, filing, prosecuting, maintaining, expanding, defending and enforcing patent claims, including litigation costs and the outcome of such litigation;
- the timing, receipt and amount of sales of, or royalties on, our future products, if any; and
- the emergence of competing technologies or other adverse market developments.

We believe that our existing cash, cash equivalents and short-term investments will be sufficient to fund our planned operations through 2018. As of December 31, 2015, we had total cash, cash equivalents and short-term investments of $320.5 million. However, our operating plan may change as a result of many factors currently unknown to us, and we may need additional funds sooner than planned. In addition, we may seek additional capital due to favorable market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. We do not have any committed external source of funds. Additional funds may not be available when we need them on terms that are acceptable to us, or at all. If adequate funds are not available to us on a timely basis, we may be required to delay, limit, reduce or terminate preclinical studies, clinical trials or other development activities for one or more of our product candidates or delay, limit, reduce or terminate our establishment of sales and marketing capabilities or other activities that may be necessary to commercialize our product candidates.

Raising additional capital may cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights to our product candidates on unfavorable terms to us.

We may seek additional capital through a variety of means, including through private and public equity offerings and debt financings. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms may include liquidation or other preferences that adversely affect your rights as a stockholder. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take certain actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds from third parties, we may have to relinquish valuable rights to our technologies or product candidates, or grant licenses on terms that are not favorable to us. If we are unable to raise additional funds through equity or debt financing when needed, we may be required to delay, limit, reduce or terminate our product development or commercialization efforts for our product candidates, or grant to others the rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

Our ability to use federal and state net operating loss, or NOL, carryforwards to offset potential future taxable income and related income taxes that would otherwise be due is dependent upon our generation of future taxable income before the expiration dates of the NOL carryforwards, and we cannot predict with certainty when, or whether, we will generate sufficient taxable income to use all or a portion of our NOL carryforwards. As of December 31, 2015, we had federal and state NOL carryforwards for tax return purposes of $68.8 million and $68.7 million, respectively, which, if not utilized, begin to expire in various amounts beginning in the year 2032. Under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, if over a rolling three-year period, the cumulative change in our ownership exceeds 50% (as determined under applicable Treasury regulations), our ability to utilize our US NOL carryforwards and other pre-change tax attributes (such as research tax credits) to offset future taxable income or taxes may be limited. We completed a Section 382 study of transactions in our stock through December 31, 2015 and concluded that we have experienced at least one ownership change since inception and our utilization of NOL carryforwards will therefore be subject to annual limitation. Our ability to utilize our NOL carryforwards may be further limited as a result of subsequent ownership changes. Similar rules may apply under state tax laws. Further, other provisions of the Code may limit our ability to utilize NOLs incurred before our recapitalization to offset income or gain realized after the recapitalization, unless such income or gain is realized by the

same entity that originally incurred such NOLs. In addition, at the state level, there may be periods during which the use of NOLs is suspended or otherwise limited. Such limitations could result in the expiration of our NOL carryforwards before they can be utilized and, if we are profitable, our future cash flows could be adversely affected due to our increased tax liability.

Risks Related to the Development of Our Product Candidates

We are very early in our development efforts and have only four product candidates in clinical development. All of our other product candidates are still in preclinical development. If we or our collaborators are unable to successfully develop and commercialize product candidates or experience significant delays in doing so, our business may be materially harmed.

We are very early in our development efforts. We have four product candidates, EBV-CTL, CMV-CTL, WT1-CTL and STM 434, in clinical development. All of our other product candidates are currently in preclinical development. We have invested substantially all of our efforts and financial resources in identifying and developing potential product candidates and conducting preclinical studies, clinical trials and manufacturing activities. Our ability to generate revenues, which we do not expect will occur for many years, if ever, will depend heavily on the successful development and eventual commercialization of our product candidates. The success of our product candidates will depend on several factors, including the following:

- completion of preclinical studies and clinical trials with positive results;
- receipt of regulatory approvals from applicable authorities;
- obtaining and maintaining patent and trade secret protection and regulatory exclusivity for our product candidates;
- making arrangements with third-party manufacturers for, or establishing, commercial manufacturing capabilities;
- develop manufacturing and distribution processes for our novel T-cell product candidates;
- manufacturing products at an acceptable cost;
- launching commercial sales of our product candidates, if approved, whether alone or in collaboration with others;
- acceptance of the product candidates, if approved, by patients, the medical community and third-party payors;
- effectively competing with other therapies;
- obtaining and maintaining coverage and adequate reimbursement by third-party payors, including government payors, for our product candidates;
- protecting our rights in our intellectual property portfolio;
- maintaining a continued acceptable safety profile of the products following approval; and
- maintaining and growing an organization of scientists and business people who can develop and commercialize our products and technology.

For example, in December 2015, we announced that our PINTA 745 Phase 2 proof-of-concept trial did not meet its primary endpoint, and we suspended further development of PINTA 745. If we do not achieve one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully develop and commercialize our product candidates, which could materially harm our business.

Our future success is dependent on the regulatory approval of our product candidates.

We do not have any products that have gained regulatory approval. Currently, our only clinical-stage product candidates are EBV-CTL and CMV-CTL, which are in Phase 2 clinical trials, and WT1-CTL and STM 434, which are in Phase 1 clinical trials. Our business is substantially dependent on our ability to obtain regulatory approval for, and, if approved, to successfully commercialize our product candidates in a timely manner. We cannot commercialize product candidates in the United States without first obtaining regulatory approval for the product from the FDA; similarly, we cannot commercialize product candidates outside of the United States without obtaining regulatory approval from comparable foreign regulatory authorities. Before obtaining regulatory approvals for the commercial sale of any product candidate for a target indication, we must demonstrate with substantial evidence gathered in preclinical studies and clinical trials, generally including two well-controlled Phase 3 trials, that the product candidate is safe and effective for use for that target indication and that the manufacturing facilities, processes and controls are adequate with respect to such product candidate.

The time required to obtain approval by the FDA and comparable foreign regulatory authorities is unpredictable but typically takes many years following the commencement of preclinical studies and clinical trials and depends upon numerous factors, including the substantial discretion of the regulatory authorities. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate's clinical development and may vary among jurisdictions. We have not obtained regulatory approval for any product candidate and it is possible that none of our existing product candidates or any future product candidates will ever obtain regulatory approval.

Our product candidates could fail to receive regulatory approval from the FDA or a comparable foreign regulatory authority for many reasons, including:

- disagreement with the design or implementation of our clinical trials;
- failure to demonstrate that a product candidate is safe and effective for its proposed indication;
- failure of clinical trials to meet the level of statistical significance required for approval;
- failure to demonstrate that a product candidate's clinical and other benefits outweigh its safety risks;
- disagreement with our interpretation of data from preclinical studies or clinical trials;
- the insufficiency of data collected from clinical trials of our product candidates to support the submission and filing of a BLA or other submission or to obtain regulatory approval;
- failure to obtain approval of the manufacturing processes or facilities of third-party manufacturers with whom we contract for clinical and commercial supplies; or
- changes in the approval policies or regulations that render our preclinical and clinical data insufficient for approval.

The FDA or a comparable foreign regulatory authority may require more information, including additional preclinical or clinical data to support approval, which may delay or prevent approval and our commercialization plans, or we may decide to abandon the development program. If we were to obtain approval, regulatory authorities may approve any of our product candidates for fewer or more limited indications than we request (including failing to approve the most commercially promising indications), may grant approval contingent on the performance of costly post-marketing clinical trials, or may approve a product candidate with a label that does not include the labeling claims necessary or desirable for the successful commercialization of that product candidate.

Even if a product candidate were to successfully obtain approval from the FDA and comparable foreign regulatory authorities, any approval might contain significant limitations related to use restrictions for specified age groups, warnings, precautions or contraindications, or may be subject to burdensome post-approval study or risk management requirements. If we are unable to obtain regulatory approval for one of our product candidates in one or more jurisdictions, or any approval contains significant limitations, we may not be able to obtain sufficient funding to continue the development of that product or generate revenues attributable to that product candidate. Also, any regulatory approval of our current or future product candidates, once obtained, may be withdrawn.

Our T-cell product candidates, EBV-CTL, CMV-CTL and WT1-CTL, represent new therapeutic approaches that present significant challenges.

Our future success is dependent in part on the successful development of T-cell immunotherapies in general and our EBV-CTL, CMV-CTL and WT1-CTL product candidates in particular. Because these programs represent a new approach to immunotherapy for the treatment of cancer and other diseases, developing and commercializing our product candidates subject us to a number of challenges, including:

- obtaining regulatory approval from the FDA and other regulatory authorities, which have very limited experience with the development and commercialization of T-cell therapies;
- developing and deploying consistent and reliable processes for procuring blood from consenting third-party donors, isolating T-cells from the blood of such donors, activating the isolated T-cells against a specific antigen, characterizing and storing the resulting activated T-cells for future therapeutic use, selecting and delivering an appropriate partially HLA matched cell line from among the available T-cell lines, and finally infusing these activated T-cells into patients;
- utilizing these product candidates in combination with other therapies, which may increase the risk of adverse side effects;
- educating medical personnel regarding the potential side effect profile of each of our product candidates;
- developing processes for the safe administration of these products, including long-term follow-up for all patients who receive these product candidates;

- sourcing clinical and, if approved, commercial supplies for the materials used to manufacture and process these product candidates;
- developing a manufacturing process and distribution network that can provide a stable supply with a cost of goods that allows for an attractive return on investment;
- establishing sales and marketing capabilities after obtaining any regulatory approval to gain market acceptance, and obtaining adequate coverage, reimbursement and pricing by third-party payors and government authorities; and
- developing therapies for types of diseases beyond those initially addressed by our current product candidates.

We cannot be sure that the manufacturing processes used in connection with our T-cell product candidates, EBV-CTL, CMV-CTL and WT1-CTL, will yield satisfactory products that are safe and effective, comparable to those T-cells produced by MSK historically, scalable or profitable.

Moreover, public perception of safety issues, including adoption of new therapeutics or novel approaches to treatment, may adversely influence the willingness of subjects to participate in clinical trials, or if approved, of physicians to subscribe to the novel treatment mechanics. Physicians, hospitals and third-party payors often are slow to adopt new products, technologies and treatment practices that require additional upfront costs and training. Physicians may not be willing to undergo training to adopt this novel therapy, may decide the therapy is too complex to adopt without appropriate training and may choose not to administer the therapy. Based on these and other factors, hospitals and payors may decide that the benefits of this new therapy do not or will not outweigh its costs.

The results of preclinical studies or earlier clinical trials are not necessarily predictive of future results. Our existing product candidates in clinical trials, and any other product candidate we advance into clinical trials, may not have favorable results in later clinical trials or receive regulatory approval.

Success in preclinical studies and early clinical trials does not ensure that later clinical trials will generate adequate data to demonstrate the efficacy and safety of an investigational drug. A number of companies in the pharmaceutical and biotechnology industries, including those with greater resources and experience than us, have suffered significant setbacks in clinical trials, even after seeing promising results in earlier preclinical studies or clinical trials. For example, in December 2015, we announced that our PINTA 745 Phase 2 proof-of-concept trial did not meet its primary endpoint even though earlier clinical trials and preclinical studies had indicated that it might be effective to treat protein energy wasting in patients with end stage renal disease. Despite the results reported in earlier preclinical studies or clinical trials for our product candidates, we do not know whether the clinical trials we may conduct will demonstrate adequate efficacy and safety to result in regulatory approval to market EBV-CTL, CMV-CTL, WT1-CTL, STM 434 or any of our other product candidates in any particular jurisdiction. For example, our EBV-CTL, CMV-CTL and WT1-CTL product candidates have only been evaluated in single-center trials under investigator-sponsored INDs held by MSK, utilizing a different response criteria and endpoints from those we may utilize in later clinical trials. The findings may not be reproducible in multi-center trials we conduct. In addition, the Phase 2 clinical trials with EBV-CTL enrolled a heterogeneous group of patients with a variety of EBV-associated malignancies, including but not limited to EBV-PTLD after HCT and EBV-PTLD after SOT. These Phase 2 trials were not prospectively designed to evaluate the efficacy of EBV-CTL in the treatment of a single disease state for which we may later seek approval. Efficacy data from prospectively designed trials may differ significantly from those obtained from retrospective subgroup analyses. If later-stage clinical trials do not produce favorable results, our ability to achieve regulatory approval for any of our product candidates may be adversely impacted. Even if we believe that we have adequate data to support an application for regulatory approval to market any of our product candidates, the FDA or other regulatory authorities may not agree and may require that we conduct additional clinical trials.

Clinical drug development involves a lengthy and expensive process with an uncertain outcome.

Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial process. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through preclinical and clinical trials.

We may experience delays in our ongoing or future clinical trials and we do not know whether planned clinical trials will begin or enroll subjects on time, will need to be redesigned or will be completed on schedule, if at all. There can be no assurance that the FDA will not put clinical trials of any of our product candidates on clinical hold in the future. Clinical trials may be delayed, suspended or prematurely terminated for a variety of reasons, such as:

- delay or failure in reaching agreement with the FDA or a comparable foreign regulatory authority on a trial design that we are able to execute;
- delay or failure in obtaining authorization to commence a trial or inability to comply with conditions imposed by a regulatory authority regarding the scope or design of a trial;
- delay or failure in reaching agreement on acceptable terms with prospective contract research organizations, or CROs, and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- delay or failure in obtaining institutional review board, or IRB, approval or the approval of other reviewing entities, including comparable foreign regulatory authorities, to conduct a clinical trial at each site;
- withdrawal of clinical trial sites from our clinical trials or the ineligibility of a site to participate in our clinical trials;
- delay or failure in recruiting and enrolling suitable subjects to participate in a trial;
- delay or failure in subjects completing a trial or returning for post-treatment follow-up;
- clinical sites and investigators deviating from trial protocol, failing to conduct the trial in accordance with regulatory requirements, or dropping out of a trial;
- inability to identify and maintain a sufficient number of trial sites, many of which may already be engaged in other clinical trial programs, including some that may be for the same indication;
- failure of our third-party clinical trial managers to satisfy their contractual duties, meet expected deadlines or return trustworthy data;
- delay or failure in adding new trial sites;
- interim results or data that are ambiguous or negative or are inconsistent with earlier results or data;
- feedback from the FDA, the IRB, data safety monitoring boards or a comparable foreign regulatory authority, or results from earlier stage or concurrent preclinical studies and clinical trials, that might require modification to the protocol for a trial;
- a decision by the FDA, the IRB, a comparable foreign regulatory authority, or us, or a recommendation by a data safety monitoring board or comparable foreign regulatory authority, to suspend or terminate clinical trials at any time for safety issues or for any other reason;
- unacceptable risk-benefit profile, unforeseen safety issues or adverse side effects;
- failure to demonstrate a benefit from using a product candidate;
- difficulties in manufacturing or obtaining from third parties sufficient quantities of a product candidate to start or to use in clinical trials;
- lack of adequate funding to continue a trial, including the incurrence of unforeseen costs due to enrollment delays, requirements to conduct additional studies or increased expenses associated with the services of our CROs and other third parties; or
- changes in governmental regulations or administrative actions or lack of adequate funding to continue a clinical trial.

Patient enrollment, a significant factor in the timing of clinical trials, is affected by many factors including the size and nature of the patient population, the severity of the disease under investigation, the proximity of subjects to clinical sites, the patient referral practices of physicians, the eligibility criteria for the trial, the design of the clinical trial, ability to obtain and maintain patient consents, risk that enrolled subjects will drop out or die before completion, competing clinical trials and clinicians' and patients' perceptions as to the potential advantages and risks of the drug being studied in relation to other available therapies, including any new drugs that may be approved for the indications we are investigating. We may not be able to initiate or continue to support clinical trials of EBV-CTL, CMV-CTL, WT1-CTL, STM 434 or any future product candidates if we are unable to locate and enroll a sufficient number of eligible participants in these trials as required by the FDA or other regulatory authorities. Even if we are able to enroll a sufficient number of patients in our clinical trials, if the pace of enrollment is slower than we expect, the development costs for our product

candidates may increase and the completion of our trials may be delayed or our trials could become too expensive to complete. We rely on CROs, other vendors and clinical trial sites to ensure the proper and timely conduct of our clinical trials, and while we have agreements governing their committed activities, we have limited influence over their actual performance.

If we experience delays in the completion or termination of any clinical trial of our product candidates, the approval and commercial prospects of such product candidate will be harmed, and our ability to generate product revenues from such product candidate will be delayed. In addition, any delays in completing our clinical trials will increase our costs, slow down our product candidate development and approval process and jeopardize our ability to commence product sales and generate revenues. Any delays in completing our clinical trials for the product candidates we have licensed from Amgen or MSK may also decrease the period of commercial exclusivity under our corresponding product candidate license from Amgen or MSK. In addition, many of the factors that could cause a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates.

Our product candidates, the methods used to deliver them or their dosage levels may cause undesirable side effects or have other properties that could delay or prevent their regulatory approval, limit the commercial profile of an approved label or result in significant negative consequences following any regulatory approval.

Undesirable side effects caused by our product candidates, their delivery methods or dosage levels could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or other comparable foreign regulatory authority. As a result of safety or toxicity issues that we may experience in our clinical trials, we may not receive approval to market any product candidates, which could prevent us from ever generating revenues or achieving profitability. Results of our trials could reveal an unacceptably high severity and prevalence of side effects. In such an event, our trials could be suspended or terminated and the FDA or comparable foreign regulatory authorities could order us to cease further development of or deny approval of our product candidates for any or all targeted indications. The drug-related side effects could affect patient recruitment or the ability of enrolled subjects to complete the trial or result in potential product liability claims. Any of these occurrences may have a material adverse effect on our business, results of operations, financial condition, cash flows and future prospects.

Additionally, if any of our product candidates receives regulatory approval, and we or others later identify undesirable side effects caused by such product, a number of potentially significant negative consequences could result, including that:

- we may be forced to suspend marketing of such product;
- regulatory authorities may withdraw their approvals of such product;
- regulatory authorities may require additional warnings on the label that could diminish the usage or otherwise limit the commercial success of such products;
- we may be required to conduct post-marketing studies;
- we may be required to change the way the product is administered;
- we could be sued and held liable for harm caused to subjects or patients; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the particular product candidate, if approved.

We may not be able to obtain orphan drug exclusivity for our product candidates.

Regulatory authorities in some jurisdictions, including the United States and Europe, may designate drugs for relatively small patient populations as orphan drugs. Under the Orphan Drug Act, the FDA may designate a product as an orphan drug if it is a drug intended to treat a rare disease or condition, which is generally defined as a patient population of fewer than 200,000 individuals annually in the United States. The FDA has granted us orphan drug status for STM 434 for ovarian cancer and for EBV-CTL for EBV-PTLD after HCT or SOT. We have also applied for orphan drug status with the EMA for EBV-associated lymphoproliferative disorder following allogeneic HCT.

Generally, if a product with an orphan drug designation subsequently receives the first regulatory approval for the indication for which it has such designation, the product is entitled to a period of marketing exclusivity, which precludes the EMA or the FDA from approving another marketing application for the same drug for that time period. The applicable period is seven years in the United States and ten years in Europe. The European exclusivity period can be reduced to six years if a drug no longer meets the criteria for

orphan drug designation or if the drug is sufficiently profitable so that market exclusivity is no longer justified. Orphan drug exclusivity may be lost if the FDA or EMA determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the drug to meet the needs of patients with the rare disease or condition.

Even if we obtain orphan drug exclusivity for a product, that exclusivity may not effectively protect the product from competition because different drugs can be approved for the same condition. Even after an orphan drug is approved, the FDA can subsequently approve a new drug for the same condition if the FDA concludes that the later drug is clinically superior in that it is shown to be safer, more effective or makes a major contribution to patient care.

Failure to obtain regulatory approval in international jurisdictions would prevent our product candidates from being marketed abroad.

In addition to regulations in the United States, to market and sell our products in the European Union, many Asian countries and other jurisdictions, we must obtain separate regulatory approvals and comply with numerous and varying regulatory requirements. The approval procedure varies among countries and can involve additional testing. The time required to obtain approval may differ substantially from that required to obtain FDA approval. The regulatory approval process outside the United States generally includes all of the risks associated with obtaining FDA approval. Clinical trials accepted in one country may not be accepted by regulatory authorities in other countries. In addition, many countries outside the United States require that a product be approved for reimbursement before it can be approved for sale in that country. A product candidate that has been approved for sale in a particular country may not receive reimbursement approval in that country. We may not be able to obtain approvals from regulatory authorities outside the United States on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one regulatory authority outside the United States does not ensure approval by regulatory authorities in other countries or jurisdictions or by the FDA. We may not be able to file for regulatory approvals and may not receive necessary approvals to commercialize our products in any market. If we are unable to obtain approval of any of our product candidates by regulatory authorities in the European Union, Asia or elsewhere, the commercial prospects of that product candidate may be significantly diminished, our business prospects could decline and this could materially adversely affect our business, results of operations and financial condition.

Even if our product candidates receive regulatory approval, they may still face future development and regulatory difficulties.

Even if we obtain regulatory approval for a product candidate, it would be subject to ongoing requirements by the FDA and comparable foreign regulatory authorities governing the manufacture, quality control, further development, labeling, packaging, storage, distribution, adverse event reporting, safety surveillance, import, export, advertising, promotion, recordkeeping and reporting of safety and other post-marketing information. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance by our contract manufacturing organizations, or CMOs, and CROs for any post-approval clinical trials that we conduct. The safety profile of any product will continue to be closely monitored by the FDA and comparable foreign regulatory authorities after approval. If the FDA or comparable foreign regulatory authorities become aware of new safety information after approval of any of our product candidates, they may require labeling changes or establishment of a risk evaluation and mitigation strategy, impose significant restrictions on a product's indicated uses or marketing or impose ongoing requirements for potentially costly post-approval studies or post-market surveillance.

In addition, manufacturers of drug products and their facilities are subject to continual review and periodic inspections by the FDA and other regulatory authorities for compliance with current good manufacturing practices, or cGMP, current Good Clinical Practices, or GCP, current good tissue practices, or cGTP, and other regulations. If we or a regulatory agency discover previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, a regulatory agency may impose restrictions on that product, the manufacturing facility or us, including requiring recall or withdrawal of the product from the market or suspension of manufacturing. If we, our product candidates or the manufacturing facilities for our product candidates fail to comply with applicable regulatory requirements, a regulatory agency may:

- issue warning letters or untitled letters;
- mandate modifications to promotional materials or require us to provide corrective information to healthcare practitioners;
- require us to enter into a consent decree, which can include imposition of various fines, reimbursements for inspection costs, required due dates for specific actions and penalties for noncompliance;
- seek an injunction or impose civil or criminal penalties or monetary fines;
- suspend or withdraw regulatory approval;
- suspend any ongoing clinical studies;

- refuse to approve pending applications or supplements to applications filed by us;
- suspend or impose restrictions on operations, including costly new manufacturing requirements; or
- seize or detain products, refuse to permit the import or export of products, or require us to initiate a product recall.

The occurrence of any event or penalty described above may inhibit our ability to successfully commercialize our products and generate revenues.

Advertising and promotion of any product candidate that obtains approval in the United States will be heavily scrutinized by the FDA, the Department of Justice, or the DOJ, the Office of Inspector General of the Department of Health and Human Services, or HHS, state attorneys general, members of Congress and the public. Additionally, advertising and promotion of any product candidate that obtains approval outside of the United States will be heavily scrutinized by comparable foreign regulatory authorities. Violations, including actual or alleged promotion of our products for unapproved or off-label uses, are subject to enforcement letters, inquiries and investigations, and civil and criminal sanctions by the FDA. Any actual or alleged failure to comply with labeling and promotion requirements may have a negative impact on our business.

Regulations, guidelines and recommendations published by various government agencies and organizations may affect the use of our product candidates.

Although treatment with EBV-CTL is recognized as a recommended treatment for persistent or progressive EBV-PTLD as set forth in the 2015 National Comprehensive Cancer Network Guidelines, future guidelines from governmental agencies, professional societies, practice management groups, private health/science foundations and organizations involved in various diseases may relate to such matters as product usage, dosage, and route of administration and use of related or competing therapies. Changes to these recommendations or other guidelines advocating alternative therapies could result in decreased use of our product candidates, which may adversely affect our results of operations.

We are subject to a multitude of manufacturing risks, any of which could substantially increase our costs and limit supply of our product candidates.

Concurrent with the license of our existing product candidates, we acquired manufacturing process know-how and certain intermediates, as well as certain supplies intended for clinical use, from Amgen and MSK. We are in the process of transferring this know-how to our CMOs to facilitate the manufacture of additional drug substance and drug product for our preclinical studies and clinical trials using the know-how and supplies we received from Amgen and MSK. Transferring manufacturing processes and know-how is complex and involves review and incorporation of both documented and undocumented processes that may have evolved over time. In addition, transferring production to different facilities may require utilization of new or different processes to meet the specific requirements of a given facility. We and our CMOs will need to conduct significant development work to transfer these processes and manufacture each of our product candidates for studies, trials and commercial launch readiness. We cannot be certain that all relevant know-how has been adequately incorporated into the manufacturing process until the completion of studies intended to demonstrate the comparability of material previously produced by Amgen or MSK with that generated by our CMO. The inability to manufacture comparable drug substance at our CMOs could delay the continued development of our product candidates.

The processes by which our product candidates are manufactured were initially developed by Amgen and MSK for clinical purposes. We intend to evolve these existing processes for more advanced clinical trials or commercialization. Developing commercially viable manufacturing processes is a difficult and uncertain task, and there are risks associated with scaling to the level required for advanced clinical trials or commercialization, including cost overruns, potential problems with process scale-up, process reproducibility, stability issues, consistency and timely availability of reagents or raw materials. The manufacturing facilities in which our product candidates will be made could be adversely affected by earthquakes and other natural disasters, equipment failures, labor shortages, power failures, and numerous other factors.

Additionally, the process of manufacturing biologics and cellular therapies is complex, highly regulated and subject to several risks, including but not limited to:

- the process of manufacturing biologics and cellular therapies is extremely susceptible to product loss due to contamination, equipment failure or improper installation or operation of equipment, or vendor or operator error. Even minor deviations from normal manufacturing and distribution processes for any of our product candidates could result in reduced production yields, product defects, and other supply disruptions. Product defects can also occur unexpectedly. For example, in April 2014, we encountered a small number of cracked vials in certain STM 434 drug product lots. If microbial, viral, or other contaminations are discovered in our product candidates or in the manufacturing facilities in

which our product candidates are made, such manufacturing facilities may need to be closed for an extended period of time to allow us to investigate and remedy the contamination; and

- because EBV-CTL, CMV-CTL and WT1-CTL are manufactured from the blood of third-party donors, the process of developing products that can be commercialized may be particularly challenging, even if they otherwise prove to be safe and effective. The manufacture of these product candidates involves complex processes. Some of these processes require specialized equipment and highly skilled and trained personnel. The process of manufacturing these product candidates will be susceptible to additional risks, given the need to maintain aseptic conditions throughout the manufacturing process. Contamination in the donor material or ingress of microbiological material at any point in the process may result in contaminated and unusable product. Furthermore, the product ultimately consists of many individual cell lines, each with a different HLA profile. As a result, the selection and distribution of the appropriate cell line for therapeutic use in a patient will require close coordination between clinical and manufacturing personnel.

Any adverse developments affecting manufacturing operations for our product candidates may result in shipment delays, inventory shortages, lot failures, withdrawals or recalls or other interruptions in the supply of our drug substance and drug product which could delay the development of our product candidates. We may also have to write off inventory, incur other charges and expenses for supply of drug product that fails to meet specifications, undertake costly remediation efforts, or seek more costly manufacturing alternatives. Inability to meet the demand for our products, if approved, could damage our reputation and the reputation of our products among physicians, healthcare payors, patients or the medical community, and cancer clinics, which could adversely affect our ability to operate our business and our results of operations.

We may not successfully identify, acquire, develop or commercialize new potential product candidates.

Part of our business strategy is to expand our product candidate pipeline by identifying and validating new product candidates, which we may develop ourselves, in-license or otherwise acquire from others. In addition, in the event that our existing product candidates do not receive regulatory approval or are not successfully commercialized, then the success of our business will depend on our ability to expand our product pipeline through in-licensing or other acquisitions. We may be unable to identify relevant product candidates. If we do identify such product candidates, we may be unable to reach acceptable terms with any third party from which we desire to in-license or acquire them.

We may not realize the benefits of strategic alliances that we may form in the future.

We may form strategic alliances, create joint ventures or collaborations or enter into licensing arrangements with third parties that we believe will complement or augment our existing business. These relationships, or those like them, may require us to incur nonrecurring and other charges, increase our near- and long-term expenditures, issue securities that dilute our existing stockholders or disrupt our management and business. In addition, we face significant competition in seeking appropriate strategic alliances and the negotiation process is time-consuming and complex. Moreover, we may not be successful in our efforts to establish a strategic alliance or other alternative arrangements for any future product candidates and programs because our research and development pipeline may be insufficient, our product candidates and programs may be deemed to be at too early a stage of development for collaborative effort and third parties may not view our product candidates and programs as having the requisite potential to demonstrate safety and efficacy. If we license products or acquire businesses, we may not be able to realize the benefit of such transactions if we are unable to successfully integrate them with our existing operations and company culture. We cannot be certain that, following a strategic transaction or license, we will achieve the revenues or specific net income that justifies such transaction. Any delays in entering into new strategic alliances agreements related to our product candidates could also delay the development and commercialization of our product candidates and reduce their competitiveness even if they reach the market.

Risks Related to Our Dependence on Third Parties

We rely on third parties to conduct our preclinical studies and clinical trials. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, or if we lose any of our CROs, we may not be able to obtain regulatory approval for or commercialize our product candidates on a timely basis, if at all.

We have relied upon and plan to continue to rely upon third-party CROs and contractors to monitor and manage data for our ongoing preclinical and clinical programs. For example, our collaborating investigators at MSK manage the conduct of the ongoing clinical trials of EBV-CTL, CMV-CTL and WT1-CTL as well as perform the analysis, publication and presentation of data and results related to these programs. We are also relying on CROs to perform similar services for our ongoing clinical trial of STM 434. We have also relied on studies previously conducted by Amgen and MSK. We intend to utilize a CRO for our planned trials for EBV-PTLD after HCT and SOT. We rely on these parties for the execution of our preclinical studies and clinical trials, and we control only some aspects of their activities. Nevertheless, we are responsible for ensuring that each of our trials is conducted in accordance with the applicable protocol and legal, regulatory and scientific standards, and our reliance on the CROs does not relieve us of our

regulatory responsibilities. We also rely on third parties to assist in conducting our preclinical studies in accordance with Good Laboratory Practices, or GLP, and the Animal Welfare Act requirements. We and our CROs are required to comply with federal regulations, GCP, which are international standards meant to protect the rights and health of patients that are enforced by the FDA, the Competent Authorities of the Member States of the European Economic Area and comparable foreign regulatory authorities for all of our products in clinical development, and cGTP, which are standards designed to ensure that cell and tissue based products are manufactured in a manner designed to prevent the introduction, transmission and spread of communicable diseases. Regulatory authorities enforce GCP and cGTP through periodic inspections of trial sponsors, principal investigators and trial sites. If we or any of our CROs fail to comply with applicable GCP or cGTP, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our regulatory applications. We cannot assure you that upon inspection by a given regulatory authority, such regulatory authority will determine that any of our clinical trials comply with GCP or cGTP requirements. In addition, our clinical trials must be conducted with product produced under cGMP and cGTP requirements. We are also required to register ongoing clinical trials and post the results of completed clinical trials on a government-sponsored database, clinicaltrials.gov, within a specified timeframe. Failure to comply with these regulations may require us to repeat preclinical studies and clinical trials, which would delay the regulatory approval process and result in adverse publicity.

Our CROs are not our employees, and except for remedies available to us under our agreements with such CROs, we cannot control whether or not they devote sufficient time and resources, including experienced staff, to our ongoing clinical, nonclinical and preclinical programs. They may also have relationships with other entities, some of which may be our competitors. If CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols, regulatory requirements or for other reasons, our clinical trials may be extended, delayed or terminated and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates. CRO or contractor errors could cause our results of operations and the commercial prospects for our product candidates to be harmed, our costs to increase and our ability to generate revenues to be delayed.

Our internal capacity for clinical trial execution and management is limited and therefore we have relied on third parties. Outsourcing these functions involves risk that third parties may not perform to our standards, may not produce results or data in a timely manner or may fail to perform at all. For example, in July 2014, we became aware of a draft report for a preclinical study conducted with STM 217, a compound similar to STM 434 that we also licensed from Amgen. Results from this study led to the amendment of our planned clinical trial for STM 434. Other data from studies or trials previously conducted by Amgen or MSK may emerge in the future. In addition, the use of third-party service providers requires us to disclose our proprietary information to these parties, which could increase the risk that this information will be misappropriated. We currently have a small number of employees, which limits the internal resources we have available to identify and monitor our third-party providers. To the extent we are unable to identify and successfully manage the performance of third-party service providers in the future, our business may be adversely affected. Though we carefully manage our relationships with our CROs, there can be no assurance that we will not encounter challenges or delays in the future or that these delays or challenges will not have a material adverse impact on our business, financial condition and prospects.

Our CROs have the right to terminate their agreements with us in the event of an uncured material breach. In addition, some of our CROs have an ability to terminate their respective agreements with us if it can be reasonably demonstrated that the safety of the subjects participating in our clinical trials warrants such termination, if we make a general assignment for the benefit of our creditors or if we are liquidated. Identifying, qualifying and managing performance of third-party service providers can be difficult, time consuming and cause delays in our development programs. In addition, there is a natural transition period when a new CRO commences work and the new CRO may not provide the same type or level of services as the original provider. If any of our relationships with our third-party CROs terminate, we may not be able to enter into arrangements with alternative CROs or to do so timely or on commercially reasonable terms.

We have no experience manufacturing our product candidates on a clinical or commercial scale and have no manufacturing facility. We are dependent on third parties for the manufacturing of our product candidates and our supply chain, and if we experience problems with any of these third parties, the manufacturing of our product candidates could be delayed.

We do not own or operate facilities for the manufacturing of our product candidates. We currently have no commitments to build our own clinical or commercial scale manufacturing capabilities. We currently rely on single source CMOs for the production of the product candidates we have licensed from Amgen and on single source suppliers of some of the materials incorporated in these product candidates. In the case of EBV-CTL, CMV-CTL and WT1-CTL, we currently rely on MSK for the production of these product candidates and acquisition of the materials incorporated in or used in the manufacturing or testing of these product candidates. To meet our projected needs for clinical supplies to support our activities through regulatory approval and commercial manufacturing of STM 434, the CMOs with whom we currently work will need to increase the scale of production and demonstrate comparability of the material produced by these CMOs to the material that was previously produced by Amgen. To meet our projected needs for

clinical and commercial materials to support our activities through regulatory approval and commercial manufacturing of EBV-CTL, CMV-CTL and WT1-CTL, we will need to transition the manufacturing of such materials to a CMO and/or our own facility, and such CMOs or we will need develop relationships with suppliers of critical starting or other materials, increase the scale of production and demonstrate comparability of the material produced at these facilities to the material that was previously produced by MSK. Moreover, we will need to transfer the manufacturing know-how developed by and housed at MSK. We are in the process of transferring the manufacturing of EBV-CTLs to our CMO. Transferring manufacturing processes and know-how is complex and involves review and incorporation of both documented and undocumented processes that may have evolved over time. In addition, transferring production to different facilities may require utilization of new or different processes to meet the specific requirements of a given facility. We cannot be certain that all relevant know-how has been adequately incorporated into the manufacturing process until the completion of studies intended to demonstrate the comparability of material previously produced by Amgen or MSK with that generated by our CMOs. If we are not able to successfully transfer this know-how our ability to manufacture EBV-CMV, CMV-CTL and WT1-CTL may be negatively impacted. We need to identify CMOs for the production of CMV-CTL and WT1-CTL and may need to identify additional CMOs for continued production of supply for all of our product candidates. In addition, given the manufacturing process for our T-cell product candidates, the number of CMOs who possess the requisite skill and capability to manufacture our T-cell product candidates is limited. We have not yet identified alternate suppliers in the event the current CMOs that we utilize are unable to scale production, or if we otherwise experience any problems with them. We may need to build our own manufacturing facility. Manufacturing biologic drugs is complicated and tightly regulated by the FDA and comparable regulatory authorities around the world, and although alternative third-party suppliers with the necessary manufacturing and regulatory expertise and facilities exist, it could be expensive and take a significant amount of time to arrange for alternative suppliers, transfer manufacturing procedures to these alternative suppliers, and demonstrate comparability of material produced by such new suppliers. New manufacturers of any product would be required to qualify under applicable regulatory requirements. These manufacturers may not be able to manufacture our compounds at costs, or in quantities, or in a timely manner necessary to complete development of our product candidates or make commercially successful products. If we are unable to arrange for alternative third-party manufacturing sources, or to do so on commercially reasonable terms or in a timely manner, we may not be able to complete development of our product candidates, or market or distribute them. In addition, should the FDA not agree with our product candidate specifications and comparability assessments for these materials, further clinical development of our product candidate could be substantially delayed and we would incur substantial additional expenses.

Reliance on third-party manufacturers entails risks to which we would not be subject if we manufactured product candidates ourselves, including reliance on the third party for regulatory compliance and quality assurance, the possibility that the third-party manufacturer does not maintain the financial resources to meet its obligations under the manufacturing agreement, the possibility of breach of the manufacturing agreement by the third party because of factors beyond our control, including a failure to synthesize and manufacture our product candidates or any products we may eventually commercialize in accordance with our specifications, misappropriation of our proprietary information, including our trade secrets and know-how, and the possibility of termination or nonrenewal of the agreement by the third party, based on its own business priorities, at a time that is costly or damaging to us. In addition, the FDA and other regulatory authorities require that our product candidates and any products that we may eventually commercialize be manufactured according to cGMP, cGTP and similar foreign standards. These requirements include, among other things, quality control, quality assurance and the maintenance of records and documentation. The FDA or similar foreign regulatory agencies may also implement new standards at any time, or change their interpretations and enforcement of existing standards for manufacture, packaging or testing of products. We have little control over our manufacturers' compliance with these regulations and standards. Any failure by our third-party manufacturers to comply with cGMP or cGTP or failure to scale up manufacturing processes, including any failure to deliver sufficient quantities of product candidates in a timely manner, could lead to a delay in, or failure to obtain, regulatory approval of any of our product candidates. In addition, such failure could be the basis for the FDA to issue a warning letter, withdraw approvals for product candidates previously granted to us, or take other regulatory or legal action, including recall or seizure of outside supplies of the product candidate, total or partial suspension of production, suspension of ongoing clinical trials, refusal to approve pending applications or supplemental applications, detention or product, refusal to permit the import or export of products, injunction or imposing civil and criminal penalties.

Any significant disruption in our supplier relationships could harm our business. Any significant delay in the supply of a product candidate for an ongoing clinical trial could considerably delay initiation or completion of our clinical trials, product testing and potential regulatory approval of our product candidates. If our manufacturers or we are unable to purchase key materials after regulatory approval has been obtained for our product candidates, the commercial launch of our product candidates could be delayed or there could be a shortage in supply, which could impair our ability to generate revenues from the sale of our product candidates.

Risks Related to Our Intellectual Property

If we are unable to obtain and maintain sufficient intellectual property protection for our product candidates, or if the scope of the intellectual property protection is not sufficiently broad, our ability to commercialize our product candidates successfully and to compete effectively may be adversely affected.

We rely upon a combination of patents, trade secrets and confidentiality agreements to protect the intellectual property related to our technology and product candidates. For our most advanced molecularly targeted product candidate, STM 434, we own or license a number of issued patents and pending patent applications covering the product candidates' compositions of matter and methods of use. For STM 434, the expected expiration dates range from 2027 through 2035 for US patents and patent applications, if issued, and from 2026 through 2035 for patents and patent applications, if issued, in jurisdictions outside the United States, exclusive of possible patent term extensions. The T-cell product candidates and platform technology we have licensed from MSK are protected primarily as confidential know-how and trade secrets. If we do not adequately protect our intellectual property, competitors may be able to use our technologies and erode or negate any competitive advantage we may have, which could harm our business and ability to achieve profitability. The patentability of inventions and the validity, enforceability and scope of patents in the biotechnology field is generally uncertain because it involves complex legal, scientific and factual considerations, and it has in recent years been the subject of significant litigation. Moreover, the standards applied by the US Patent and Trademark Office, or USPTO, and non-US patent offices in granting patents are not always applied uniformly or predictably. For example, there is no uniform worldwide policy regarding patentable subject matter or the scope of claims allowable in biotechnology patents.

Consequently, the patent applications that we own or in-license may fail to result in issued patents with claims that cover our product candidates in the United States or in other countries. There is no assurance that all potentially relevant prior art relating to our patents and patent applications has been found. We may be unaware of prior art that could be used to invalidate an issued patent or prevent our pending patent applications from issuing as patents. There also may be prior art of which we are aware, but which we do not believe affects the validity or enforceability of a claim of one of our patents or patent applications, which may, nonetheless, ultimately be found to affect the validity or enforceability of such claim.

Even if patents have issued or do successfully issue from patent applications, and even if such patents cover our product candidates, third parties may challenge the validity, enforceability or scope thereof, which may result in such patents being narrowed, invalidated or held to be unenforceable. No assurance can be given that if challenged, our patents would be declared by a court to be not valid or enforceable. Furthermore, even if they are unchallenged, our patents and patent applications may not adequately protect our intellectual property, provide exclusivity for our product candidates or prevent others from designing around our claims. In two of our pending patent applications exclusively licensed from MSK, directed to use of CMV-CTL to treat CMV retinitis in HIV-infected patients or SOT recipients, we do not have exclusive rights, due to one of the named inventors being an employee of an entity other than MSK and ensuing co-ownership of the applications with MSK of this other entity from which we do not presently have a license. There is no guarantee that we will be able to obtain a license from this other entity on commercially reasonable terms, or at all. If this entity licenses its rights elsewhere, our competitors might gain access to this intellectual property. Also, the possibility exists that others will develop products on an independent basis which have the same effect as our product candidates and which do not infringe our patents or other intellectual property rights, or that others will design around the claims of patents that we have had issued that cover our product candidates. If the breadth or strength of protection provided by the patents and patent applications we hold, license or pursue with respect to our product candidates is threatened, it could jeopardize our ability to commercialize our product candidates. In addition, the USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Any of these outcomes could have an adverse impact on our business.

If patent applications that we hold or in-license with respect to our technology or product candidates fail to issue, if their breadth or strength of protection is threatened, or if they fail to provide meaningful exclusivity for our product candidates, it could dissuade companies from collaborating with us. We have recently filed several patent applications covering our product candidates. We cannot offer any assurances about which, if any, patents will be issued with respect to these pending patent applications, the breadth of any such patents, whether any issued patents will be found invalid and unenforceable or will be threatened by third parties. Any successful challenge to these patents or any other patents owned by or exclusively licensed to us could deprive us of rights necessary for the successful commercialization of any product candidate that we or our collaborators may develop. Because patent applications in the United States and most other countries are confidential for a period of time after filing, and some remain so until issued, we cannot be certain that we were the first to file any patent application related to a product candidate. Furthermore, if third parties have filed such patent applications that have never had a claim with an effective filing date on or after March 16, 2013, an interference proceeding in the United States can be initiated by the USPTO to determine who was the first to invent any of the subject matter covered by the patent claims of our applications or patents. Similarly, we could become involved in derivation proceedings before the USPTO to determine inventorship with respect to our patent applications. We may also become involved in opposition proceedings in the

European Patent Office or counterpart offices in other jurisdictions regarding our intellectual property rights. In addition, patents have a limited lifespan. In the United States, the natural expiration of a patent generally occurs 20 years after it is filed. Although various extensions may be available if certain conditions are met, the life of a patent and the protection it affords is limited. If we encounter delays in our clinical trials or in obtaining regulatory approvals, the period of time during which we could exclusively market any of our product candidates under patent protection, if approved, could be reduced. Even if patents covering our product candidates are obtained, once the patent life has expired for a product, we may be vulnerable to competition from biosimilar products. Any loss of patent protection could have a material adverse impact on our business. We may be unable to prevent competitors from entering the market with a product that is similar or identical to our product candidates, which could harm our business and ability to achieve profitability.

Furthermore, the research resulting in certain of our licensed patent rights and technology was funded by the U.S. government. As a result, the government has certain rights, such as march-in rights, to such patent rights and technology. When new technologies are developed with government funding, the government generally obtains certain rights in any resulting patents, including a non-exclusive license authorizing the government to practice the invention for or on behalf of the United States. These rights may permit the government to disclose our confidential information to third parties and to exercise march-in rights to use or allow third parties to use our licensed technology. The government can exercise its march-in rights if it determines that action is necessary because we fail to achieve practical application of the government-funded technology, because action is necessary to alleviate health or safety needs, to meet requirements of federal regulations or to give preference to U.S. industry. In addition, our rights in such inventions may be subject to certain requirements to manufacture products embodying such inventions in the United States. Any exercise by the government of such rights could harm our competitive position, business, results of operations, financial condition and future prospects.

If we are sued for infringing the intellectual property rights of third parties, such litigation could be costly and time-consuming and could prevent or delay our development and commercialization efforts.

Our commercial success depends, in part, on us and our collaborators not infringing the patents and proprietary rights of third parties. There is a substantial amount of litigation and other adversarial proceedings, both within and outside the United States, involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries, including patent infringement lawsuits, interference or derivation proceedings, oppositions, and *inter partes* and post-grant review proceedings before the USPTO and non-US patent offices. Numerous US and non-US issued patents and pending patent applications owned by third parties exist in the fields in which we are developing and may develop our product candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that our product candidates may be subject to claims of infringement of third parties' patent rights as it may not always be clear to industry participants, including us, which patents cover various types of products or methods of use. The coverage of patents is subject to interpretation by the courts, and the interpretation is not always uniform or predictable.

Third parties may assert infringement claims against us based on existing or future intellectual property rights, alleging that we are employing their proprietary technology without authorization. There may be third-party patents or patent applications with claims to materials, formulations, methods of manufacture or methods for treatment related to the use or manufacturing of our product candidates that we failed to identify. For example, applications filed before November 29, 2000, and certain applications filed on or after that date that will not be filed outside the United States, remain confidential until issued as patents. Except for the preceding exceptions, patent applications in the United States and elsewhere are generally published only after a waiting period of approximately 18 months after the earliest filing date. Therefore, patent applications covering our product candidates could have been filed by others without our knowledge. In addition, pending patent applications that have been published, including some of which we are aware, could be later amended in a manner that could cover our product candidates or their use or manufacture. We may analyze patents or patent applications of our competitors that we believe are relevant to our activities and believe that we are free to operate in relation to any of our product candidates, but our competitors may obtain issued claims, including in patents we consider to be unrelated, which may block our efforts or potentially result in any of our product candidates or our activities infringing such claims. If we are sued for patent infringement, we would need to demonstrate that our product candidates, products and methods either do not infringe the patent claims of the relevant patent or that the patent claims are invalid, and we may not be able to do this. Proving that a patent is invalid is difficult. For example, in the United States, proving invalidity requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents. Even if we are successful in these proceedings, we may incur substantial costs and the time and attention of our management and scientific personnel could be diverted, which could have a material adverse effect on us. If any issued third-party patents were held by a court of competent jurisdiction to cover aspects of our materials, formulations, methods of manufacture or methods for treatment, we could be forced, including by court order, to cease developing, manufacturing or commercializing the relevant product candidate until such patent expired. Alternatively, we may be required to obtain a license from such third party in order to use the infringing technology and to continue developing, manufacturing or marketing the infringing product candidate. However, we may not be able to obtain any required license on commercially reasonably terms, or at all. Even if we were able to obtain a license, the rights may be nonexclusive, which could result in our competitors gaining access to the same

intellectual property licensed to us. Ultimately, we could be prevented from commercializing a product candidate, or be forced to cease some aspect of our business operations, if, as a result of actual or threatened patent infringement claims, we are unable to enter into licenses on acceptable terms. This could harm our business significantly.

Parties making claims against us may obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize one or more of our product candidates. Defending against claims of patent infringement or misappropriation of trade secrets could be costly and time consuming, regardless of the outcome. Thus, even if we were to ultimately prevail, or to settle at an early stage, such litigation could burden us with substantial unanticipated costs. In addition, litigation or threatened litigation could result in significant demands on the time and attention of our management team, distracting them from the pursuit of other company business. In the event of a successful claim of infringement against us, we may have to pay substantial damages, including treble damages and attorneys' fees if we are found to have willfully infringed a patent, or to redesign our infringing product candidates, which may be impossible or require substantial time and monetary expenditure. We may also elect to enter into license agreements in order to settle patent infringement claims prior to litigation, and any such license agreement may require us to pay royalties and other fees that could be significant.

We may face claims that we misappropriated the confidential information or trade secrets of a third party. If we are found to have misappropriated a third party's trade secrets, we may be prevented from further using such trade secrets, which could limit our ability to develop our product candidates. We are not aware of any material threatened or pending claims related to these matters, but in the future litigation may be necessary to defend against such claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management. During the course of any patent or other intellectual property litigation, there could be public announcements of the results of hearings, rulings on motions, and other interim proceedings in the litigation. If securities analysts or investors regard these announcements as negative, the perceived value of our product candidates, programs or intellectual property could be diminished. Accordingly, the market price of our common stock may decline.

We may not be able to protect our intellectual property rights throughout the world.

Filing, prosecuting, enforcing and defending patents on all of our product candidates in all countries throughout the world would be prohibitively expensive. Our or our licensors' intellectual property rights in certain countries outside the United States may be less extensive than those in the United States. In addition, the laws of certain foreign countries do not protect intellectual property rights to the same extent as laws in the United States. Consequently, we and our licensors may not be able to prevent third parties from practicing our and our licensors' inventions in countries outside the United States, or from selling or importing infringing products made using our and our licensors' inventions in and into the United States or other jurisdictions. Competitors may use our and our licensors' technologies in jurisdictions where we have not obtained patent protection or where we do not have exclusive rights under the relevant patent(s) to develop their own products and, further, may export otherwise infringing products to territories where we and our licensors have patent protection but where enforcement is not as strong as that in the United States. These infringing products may compete with our product candidates in jurisdictions where we or our licensors have no issued patents or where we do not have exclusive rights under the relevant patent(s), or our patent claims and other intellectual property rights may not be effective or sufficient to prevent them from so competing. Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biopharmaceuticals, which could make it difficult for us and our licensors to stop the infringement of our and our licensors' patents or marketing of competing products in violation of our and our licensors' proprietary rights generally. Proceedings to enforce our and our licensors' patent rights in foreign jurisdictions could result in substantial costs and divert our attention from other aspects of our business, could put our and our licensors' patents at risk of being invalidated or interpreted narrowly, could put our and our licensors' patent applications at risk of not issuing, and could provoke third parties to assert claims against us or our licensors. We or our licensors may not prevail in any lawsuits that we or our licensors initiate, and even if we or our licensors are successful the damages or other remedies awarded, if any, may not be commercially meaningful.

We have in-licensed a significant portion of our intellectual property from Amgen and MSK. If we breach any of our license agreements with Amgen or MSK, we could lose the ability to continue the development and potential commercialization of one or more of our product candidates.

We hold rights under a number of license agreements with Amgen and MSK that are important to our business. Our discovery and development platform is built, in part, around patent rights exclusively in-licensed from Amgen and MSK. The Amgen agreements generally grant us an exclusive (except as to the licenses to Amgen know-how, which are non-exclusive and limited as to their field of use), worldwide license to research, develop, improve, make, use, offer for sale, sell, import, export or otherwise exploit several classes of novel compounds, including STM 434. The MSK agreement generally grants us an exclusive license to research,

develop, make, use, offer for sale, sell and import, EBV-CTL, CMV-CTL and WT1-CTL. Two pending provisional applications licensed to us by MSK that are both directed to methods of treating CMV retinitis in HIV-infected patients or SOT recipients, are co-owned by MSK and another entity, and thus our exclusive license from MSK does not convey exclusive rights under those applications. Under our existing Amgen and MSK license agreements, we are subject to various obligations, including diligence obligations with respect to development and commercialization activities, payment obligations upon achievement of certain milestones and royalties on product sales, as well as other material obligations. If there is any conflict, dispute, disagreement or issue of nonperformance between us and Amgen or MSK regarding our rights or obligations under the license agreements, including any such conflict, dispute or disagreement arising from our failure to satisfy diligence or payment obligations under any such agreement, we may be liable to pay damages and Amgen or MSK may have a right to terminate the affected license. The loss of any or all of our license agreements with Amgen or our license agreement with MSK could materially adversely affect our ability to proceed to utilize the affected intellectual property in our drug discovery and development efforts, our ability to enter into future collaboration, licensing and/or marketing agreements for one or more affected product candidates and our ability to commercialize the affected product candidates. The risks described elsewhere pertaining to our patents and other intellectual property rights also apply to the intellectual property rights that we license, and any failure by us or our licensors to obtain, maintain and enforce these rights could have a material adverse effect on our business.

We may become involved in lawsuits to protect or enforce our intellectual property, which could be expensive, time-consuming and unsuccessful and have a material adverse effect on the success of our business and on our stock price.

Third parties may infringe our patents, the patents of our licensors, or misappropriate or otherwise violate our or our licensors' intellectual property rights. Our and our licensors' patent applications cannot be enforced against third parties practicing the technology claimed in such applications unless and until a patent issues from such applications, and then only to the extent the issued claims cover the technology. In the future, we or our licensors may elect to initiate legal proceedings to enforce or defend our or our licensors' intellectual property rights, to protect our or our licensors' trade secrets or to determine the validity or scope of intellectual property rights we own or control. Any claims that we assert against perceived infringers could also provoke these parties to assert counterclaims against us alleging that we infringe their intellectual property rights. In addition, third parties may initiate legal proceedings against us or our licensors to challenge the validity or scope of intellectual property rights we own or control. The proceedings can be expensive and time-consuming. Many of our or our licensors' adversaries in these proceedings may have the ability to dedicate substantially greater resources to prosecuting these legal actions than we or our licensors can. Accordingly, despite our or our licensors' efforts, we or our licensors may not be able to prevent third parties from infringing upon or misappropriating intellectual property rights we own or control, particularly in countries where the laws may not protect our rights as fully as in the United States. Litigation could result in substantial costs and diversion of management resources, which could harm our business and financial results. In addition, in an infringement proceeding, a court may decide that a patent owned by or licensed to us is invalid or unenforceable, in whole or in part, or may refuse to stop the other party from using the technology at issue on the grounds that our or our licensors' patents do not cover the technology in question. An adverse result in any litigation proceeding could put one or more of our or our licensors' patents at risk of being invalidated, held unenforceable or interpreted narrowly.

Interference or derivation proceedings provoked by third parties, brought by us or our licensors or collaborators, or brought by the USPTO or any non-US patent authority may be necessary to determine the priority of inventions or matters of inventorship with respect to our patents or patent applications. We may also become involved in other proceedings, such as reexamination or opposition proceedings, *inter partes* review or other preissuance or post-grant proceedings in the USPTO or its foreign counterparts relating to our intellectual property or the intellectual property of others. An unfavorable outcome in any such proceeding could require us or our licensors to cease using the related technology and commercializing our product candidates, or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not offer us or our licensors a license on commercially reasonable terms if any license is offered at all. Even if we or our licensors obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us or our licensors. In addition, if the breadth or strength of protection provided by our or our licensors' patents and patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates. Even if we successfully defend such litigation or proceeding, we may incur substantial costs and it may distract our management and other employees. We could be found liable for monetary damages, including treble damages and attorneys' fees, if we are found to have willfully infringed a patent.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of shares of our common stock.

Changes in patent law could diminish the value of patents in general, thereby impairing our ability to protect our product candidates.

As is the case with other biotechnology and pharmaceutical companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biopharmaceutical industry involves both technological and legal complexity, and obtaining and enforcing biopharmaceutical patents is costly, time-consuming, and inherently uncertain. The Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our and our licensors' ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents once obtained. Depending on future decisions by the US Congress, the federal courts and/or the USPTO, the laws and regulations governing patents could change in unpredictable ways that may weaken our and our licensors' ability to obtain new patents or to enforce existing patents and patents we and our licensors or collaborators may obtain in the future.

Recent patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our and our licensors' patent applications and the enforcement or defense of our or our licensors' issued patents. On September 16, 2011, the Leahy-Smith America Invents Act, or the Leah y-Smith Act, was signed into law. The Leahy-Smith Act includes a number of significant changes to US patent law. These include provisions that affect the way patent applications are prosecuted and may also affect patent litigation. The USPTO recently developed new regulations and procedures to govern administration of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, and in particular, the first to file provisions, only became effective on March 16, 2013. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. However, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our or our licensors' patent applications and the enforcement or defense of our or our licensors' issued patents, all of which could have a material adverse effect on our business and financial condition.

If we are unable to protect the confidentiality of our trade secrets and other proprietary information, the value of our technology could be materially adversely affected and our business could be harmed.

In addition to seeking the protection afforded by patents, we rely on trade secret protection and confidentiality agreements to protect proprietary know-how that is not patentable or that we elect not to patent, processes for which patents are difficult to enforce, and other elements of our technology, discovery and development processes that involve proprietary know-how, information or technology that is not covered by patents. The T-cell product candidates and platform technology we have licensed from MSK are protected primarily as confidential know-how and trade secrets. Any disclosure to or misappropriation by third parties of our confidential proprietary information could enable competitors to quickly duplicate or surpass our technological achievements, including by enabling them to develop and commercialize products substantially similar to or competitive with our EBV-CTL, CMV-CTL or WT1-CTL product candidates, thus eroding our competitive position in the market. Trade secrets can be difficult to protect. We seek to protect our proprietary technology and processes, in part, by entering into confidentiality agreements and invention assignment agreements with our employees, consultants, and outside scientific advisors, contractors and collaborators. These agreements are designed to protect our proprietary information. Although we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors, or outside scientific advisors might intentionally or inadvertently disclose our trade secrets or confidential, proprietary information to competitors. In addition, competitors may otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. If any of our confidential proprietary information were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent such competitor from using that technology or information to compete with us, which could harm our competitive position.

Enforcing a claim that a third party illegally obtained and is using any of our trade secrets is expensive and time consuming, and the outcome is unpredictable. In addition, the laws of certain foreign countries do not protect proprietary rights such as trade secrets to the same extent or in the same manner as the laws of the United States. Misappropriation or unauthorized disclosure of our trade secrets to third parties could impair our competitive advantage in the market and could materially adversely affect our business, results of operations and financial condition.

Risks Related to Commercialization of Our Product Candidates

Our commercial success depends upon attaining significant market acceptance of our product candidates, if approved, among physicians, patients, healthcare payors and cancer treatment centers.

Even if we obtain regulatory approval for any of our product candidates that we may develop or acquire in the future, the product may not gain market acceptance among physicians, healthcare payors, patients or the medical community, including cancer treatment centers. Market acceptance of any of our product candidates for which we receive approval depends on a number of factors, including:

- the efficacy and safety of such product candidates as demonstrated in clinical trials;
- the clinical indications and patient populations for which the product candidate is approved;
- acceptance by physicians, major cancer treatment centers and patients of the drug as a safe and effective treatment;
- the adoption of novel cellular therapies by physicians, hospitals and third-party payors;
- the potential and perceived advantages of product candidates over alternative treatments;
- the safety of product candidates seen in a broader patient group, including its use outside the approved indications;
- any restrictions on use together with other medications;
- the prevalence and severity of any side effects;
- product labeling or product insert requirements of the FDA or other regulatory authorities;
- the timing of market introduction of our products as well as competitive products;
- the development of manufacturing and distribution processes for our novel T-cell product candidates;
- the cost of treatment in relation to alternative treatments;
- the availability of coverage and adequate reimbursement and pricing by third-party payors and government authorities;
- relative convenience and ease of administration; and
- the effectiveness of our sales and marketing efforts and those of our collaborators.

If any of our product candidates are approved but fail to achieve market acceptance among physicians, patients, healthcare payors or cancer treatment centers, we will not be able to generate significant revenues, which would compromise our ability to become profitable.

Even if we are able to commercialize our product candidates, the products may not receive coverage and adequate reimbursement from third-party payors in the United States and in other countries in which we seek to commercialize our products, which could harm our business.

Our ability to commercialize any product successfully will depend, in part, on the extent to which coverage and adequate reimbursement for these products and related treatments will be available from government health administration authorities, private health insurers and other organizations.

Government authorities and third-party payors, such as private health insurers and health maintenance organizations, determine which medications they will cover and establish reimbursement levels. A primary trend in the healthcare industry is cost containment. Government authorities and third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. Third-party payors may also seek additional clinical evidence, beyond the data required to obtain regulatory approval, demonstrating clinical benefits and value in specific patient populations before covering our products for those patients. We cannot be sure that coverage and adequate reimbursement will be available for any product that we commercialize and, if reimbursement is available, what the level of reimbursement will be. Coverage and reimbursement may impact the demand for, or the price of, any product candidate for which we obtain regulatory approval. If reimbursement is not available or is available only at limited levels, we may not be able to successfully commercialize any product candidate for which we obtain regulatory approval.

There may be significant delays in obtaining coverage and reimbursement for newly approved drugs, and coverage may be more limited than the purposes for which the drug is approved by the FDA or comparable foreign regulatory authorities. Moreover,

eligibility for coverage and reimbursement does not imply that any drug will be paid for in all cases or at a rate that covers our costs, including research, development, manufacture, sale and distribution. Interim reimbursement levels for new drugs, if applicable, may also not be sufficient to cover our costs and may only be temporary. Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on reimbursement levels already set for lower cost drugs and may be incorporated into existing payments for other services. Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. Third-party payors in the United States often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement policies. Our inability to promptly obtain coverage and profitable reimbursement rates from both government-funded and private payors for any approved products that we develop could have a material adverse effect on our operating results, our ability to raise capital needed to commercialize products and our overall financial condition.

Recently enacted and future legislation, including potentially unfavorable pricing regulations or other healthcare reform initiatives, may increase the difficulty and cost for us to obtain regulatory approval of and commercialize our product candidates and affect the prices we may obtain.

The regulations that govern, among other things, regulatory approvals, coverage, pricing and reimbursement for new drug products vary widely from country to country. In the United States and some foreign jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could prevent or delay regulatory approval of our product candidates, restrict or regulate post-approval activities and affect our ability to successfully sell any product candidates for which we obtain regulatory approval. Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products. We cannot be sure whether additional legislative changes will be enacted, or whether the FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the regulatory approvals of our product candidates, if any, may be.

In the United States, the European Union and other potentially significant markets for our product candidates, government authorities and third-party payors are increasingly attempting to limit or regulate the price of medical products and services, particularly for new and innovative products and therapies, which has resulted in lower average selling prices. Furthermore, the increased emphasis on managed healthcare in the United States and on country and regional pricing and reimbursement controls in the European Union will put additional pressure on product pricing, reimbursement and usage, which may adversely affect our future product sales and results of operations. These pressures can arise from rules and practices of managed care groups, judicial decisions and governmental laws and regulations related to Medicare, Medicaid and healthcare reform, pharmaceutical reimbursement policies and pricing in general.

Price controls may be imposed in foreign markets, which may adversely affect our future profitability.

In some countries, particularly member states of the European Union, the pricing of prescription drugs is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after receipt of regulatory approval for a product. In addition, there can be considerable pressure by governments and other stakeholders on prices and reimbursement levels, including as part of cost containment measures. Political, economic and regulatory developments may further complicate pricing negotiations, and pricing negotiations may continue after reimbursement has been obtained. Reference pricing used by various European Union member states and parallel distribution, or arbitrage between low-priced and high-priced member states, can further reduce prices. In some countries, we, or our collaborators, may be required to conduct a clinical trial or other studies that compare the cost-effectiveness of our product candidates to other available therapies in order to obtain or maintain reimbursement or pricing approval. Publication of discounts by third-party payors or authorities may lead to further pressure on the prices or reimbursement levels within the country of publication and other countries. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business could be adversely affected.

We face substantial competition, which may result in others discovering, developing or commercializing products before or more successfully than we do.

We face competition from numerous pharmaceutical and biotechnology enterprises, as well as from academic institutions, government agencies and private and public research institutions for our current product candidates. Our commercial opportunities will be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer side effects or are less expensive than any products that we may develop. Competition could result in reduced sales and pricing pressure on our product candidates, if approved, which in turn would reduce our ability to generate meaningful revenues and have a negative impact on our results of operations. In addition, significant delays in the development of our product candidates could allow our competitors to bring products to market before us and impair any ability to commercialize our product candidates.

There are currently no FDA or EMA approved products for the treatment of EBV-PTLD. However, some approved products and therapies are used off-label in the treatment of EBV-PTLD, such as rituximab and combination chemotherapy regimens. In addition, a number of companies and academic institutions are developing drug candidates for EBV-PTLD and other EBV associated diseases including: Cell Medica Ltd., or Cell Medica, which is conducting Phase 2 clinical studies for Cytorex EBV, an autologous EBV specific T-cell therapy in NK/T-cell lymphoma.

Drug therapies approved or commonly used for CMV infection include antiviral compounds such as ganciclovir, valganciclovir, cidofovir and foscarnet. In addition, a number of companies and academic institutions are developing drug candidates for CMV infection and other CMV-associated diseases, including: Shire Plc, or Shire, which has completed Phase 2 clinical trials of maribavir, a UL97 protein kinase inhibitor; Merck & Co. Inc., or Merck, which is conducting Phase 3 clinical trials of letermovir, a CMV terminase inhibitor; Vical Inc., or Vical, which is conducting Phase 3 clinical trials for ASP0113, a bivalent plasma DNA CMV vaccine; and ViraCyte, which is conducting Phase 1 clinical trials for Viralym-C, a CMV-specific allogeneic cell therapy product. Chimerix, Inc., or Chimerix, which is conducting Phase 2 and Phase 3 clinical trials for brincidofovir, a lipid conjugated nucleotide analogue of cidofovir, recently announced that the Phase 3 trials for the prevention of CMV infection in hematopoietic stem cell transplant recipients did not meet the primary endpoints.

Several products are approved for the treatment of relapsed or refractory multiple myeloma, including Kyprolis (marketed by Amgen Inc.), Revlimid and Pomalyst (marketed by Celgene Corporation), Velcade (marketed by Millennium Pharmaceuticals, Inc.) and Darzalex® (marketed by Janssen Research & Development, LLC). In addition, a number of companies and institutions are developing drug candidates for relapsed or refractory multiple myeloma including: AB Science SA, which is conducting a Phase 3 clinical trial for masitinib, a tyrosine kinase inhibitor; and Adaptimmune Therapeutics PLC, which is conducting Phase 1 / 2 clinical trials for a TCR candidate targeting NY-ESO-1.

There are numerous approved products and therapies for ovarian cancer, and a number of companies are or may be developing new treatments for ovarian cancer and other solid tumors. These therapies, as well as promotional efforts by competitors and clinical trial results of competitive products, could significantly diminish any ability to market and sell STM 434. Approved drug therapies for ovarian cancer include: chemotherapy with platinum compounds such as cisplatin or carboplatin and taxane compounds such as paclitaxel or docetaxel; bevacizumab in combination with a chemotherapy compound such as liposomal doxorubicin, paclitaxel or topotecan; olaparib in patients with deleterious or suspected deleterious germline breast cancer susceptibility gene, known as BRCA, mutated advanced ovarian cancer who have been treated with three or more prior lines of chemotherapy; and hormone therapies including goserelin, leuprolide, tamoxifen, letrozole, anastrozole and exemestane. A number of companies are developing drug candidates for ovarian cancer and other solid tumors, including, but not limited to F. Hoffman-La Roche, which is developing bevacizumab (Avastin) and other potential drug therapies.

Many of the approved or commonly used drugs and therapies for ovarian cancer, EBV-PTLD, CMV and relapsed or refractory multiple myeloma are well-established and are widely accepted by physicians, patients and third-party payors. Some of these drugs are branded and subject to patent protection, and other drugs and nutritional supplements are available on a generic basis. Insurers and other third-party payors may encourage the use of generic products or specific branded products. We expect that, if any of these product candidates is approved, it will be priced at a significant premium over competitive generic products. This pricing premium may make it difficult for us to differentiate these products from currently approved or commonly used therapies and impede adoption of our product, which may adversely impact our business. In addition, many companies are developing new therapeutics, and we cannot predict what the standard of care will become as our products continue in clinical development.

Many of our competitors or potential competitors have significantly greater established presence in the market, financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than we do, and as a result may have a competitive advantage over us. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies and technology licenses complementary to our programs or advantageous to our business.

As a result of these factors, these competitors may obtain regulatory approval of their products before we are able to obtain patent protection or other intellectual property rights, which will limit our ability to develop or commercialize our product candidates. Our competitors may also develop drugs that are safer, more effective, more widely used and cheaper than ours, and may also be more successful than us in manufacturing and marketing their products. These appreciable advantages could render our product candidates obsolete or noncompetitive before we can recover the expenses of development and commercialization.

Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller and other early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with

us in recruiting and retaining qualified scientific, management and commercial personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

If we are unable to establish sales and marketing capabilities or enter into agreements with third parties to market and sell our product candidates, we may be unable to generate any revenue.

We do not currently have an organization for the sale, marketing and distribution of pharmaceutical products and the cost of establishing and maintaining such an organization may exceed the cost-effectiveness of doing so. In order to market any products that may be approved by the FDA and comparable foreign regulatory authorities, we must build our sales, marketing, managerial and other non-technical capabilities or make arrangements with third parties to perform these services. There are significant risks involved in building and managing a sales organization, including our ability to hire, retain and incentivize qualified individuals, generate sufficient sales leads, provide adequate training to sales and marketing personnel and effectively manage a geographically dispersed sales and marketing team. Any failure or delay in the development of our internal sales, marketing and distribution capabilities would adversely impact the commercialization of these products. If we are unable to establish adequate sales, marketing and distribution capabilities, whether independently or with third parties, we may not be able to generate product revenues and may not become profitable. We will be competing with many companies that currently have extensive and well-funded sales and marketing operations. Without an internal commercial organization or the support of a third party to perform sales and marketing functions, we may be unable to compete successfully against these more established companies. If we are not successful in commercializing our current or future product candidates either on our own or through collaborations with one or more third parties, our future product revenue will suffer and we would incur significant additional losses.

We will need to grow the size of our organization, and we may experience difficulties in managing this growth.

As of February 15, 2016, we had 55 employees. We need to grow the size of our organization in order to support our continued development and potential commercialization of our product candidates. In particular, we will need to add substantial numbers of additional personnel and other resources to support our development and potential commercialization of EBV-CTL, CMV-CTL and WT1-CTL. As our development and commercialization plans and strategies continue to develop, or as a result of any future acquisitions, our need for additional managerial, operational, manufacturing, sales, marketing, financial and other resources will increase. Our management, personnel and systems currently in place may not be adequate to support this future growth. Future growth would impose significant added responsibilities on members of management, including:

- managing our clinical studies and trials effectively;
- identifying, recruiting, maintaining, motivating and integrating additional employees;
- managing our internal development efforts effectively while complying with our contractual obligations to licensors, licensees, contractors and other third parties;
- improving our managerial, development, operational, information technology, and finance systems; and
- expanding our facilities.

As our operations expand, we will also need to manage additional relationships with various strategic partners, suppliers and other third parties. Our future financial performance and our ability to commercialize our product candidates and to compete effectively will depend, in part, on our ability to manage any future growth effectively. To that end, we must be able to manage our development efforts and clinical studies and trials effectively and hire, train and integrate additional management, research and development, manufacturing, administrative and sales and marketing personnel. Our failure to accomplish any of these tasks could prevent us from successfully growing our company.

Our future success depends on our ability to retain our executive officers and to attract, retain and motivate qualified personnel.

We are highly dependent upon our personnel, including Isaac E. Ciechanover, M.D., our President, Chief Executive Officer and founder, and Christopher Haqq, Ph.D., M.D., our Chief Medical Officer. Our employment agreements with Drs. Ciechanover and Haqq are at-will and do not prevent them from terminating their employment with us at any time. The loss of the services of either of them could impede the achievement of our research, development and commercialization objectives.

Our future growth and success depend on our ability to recruit, retain, manage and motivate our employees. The loss of any member of our senior management team or the inability to hire or retain experienced management personnel could compromise our ability to execute our business plan and harm our operating results. Because of the specialized scientific and managerial nature of our business, we rely heavily on our ability to attract and retain qualified scientific, technical and managerial personnel. The competition

for qualified personnel in the pharmaceutical field is intense and as a result, we may be unable to continue to attract and retain qualified personnel necessary for the development of our business.

Our relationships with customers and third-party payors will be subject to applicable anti-kickback, fraud and abuse and other healthcare laws and regulations, which could expose us to criminal sanctions, civil penalties, contractual damages, reputational harm and diminished profits and future earnings.

Healthcare providers, physicians and third-party payors will play a primary role in the recommendation and prescription of any product candidates for which we obtain regulatory approval. Our future arrangements with third-party payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we would market, sell and distribute our products. As a pharmaceutical company, even though we do not and will not control referrals of healthcare services or bill directly to Medicare, Medicaid or other third-party payors, federal and state healthcare laws and regulations pertaining to fraud and abuse and patients' rights are and will be applicable to our business. Restrictions under applicable federal and state healthcare laws and regulations that may affect our ability to operate include the following:

- the federal healthcare Anti-Kickback Statute will constrain our marketing practices, educational programs, pricing policies, and relationships with healthcare providers or other entities, by prohibiting, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under a federal healthcare program such as Medicare and Medicaid;
- federal civil and criminal false claims laws and civil monetary penalty laws impose criminal and civil penalties, including through civil whistleblower or qui tam actions, against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, including the Medicare and Medicaid programs, claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government;
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program and also created federal criminal laws that prohibit knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statements in connection with the delivery of or payment for healthcare benefits, items or services;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, also imposes obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;
- the federal physician sunshine requirements under the Affordable Care Act requires manufacturers of drugs, devices, biologics and medical supplies to report annually to HHS information related to payments and other transfers of value to physicians, other healthcare providers, and teaching hospitals, and ownership and investment interests held by physicians and other healthcare providers and their immediate family members and applicable group purchasing organizations;
- analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers; some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government and may require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers; and
- marketing expenditures; and state and foreign laws govern the privacy and security of health information in specified circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, damages, fines, imprisonment, exclusion from government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations. If any physicians or other healthcare providers or entities with whom we expect to do business are found to not be in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs.

Our employees may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements, which could cause significant liability for us and harm our reputation.

We are exposed to the risk of employee fraud or other misconduct, including intentional failures to comply with FDA regulations or similar regulations of comparable foreign regulatory authorities, provide accurate information to the FDA or comparable foreign regulatory authorities, comply with manufacturing standards we have established, comply with federal and state healthcare fraud and abuse laws and regulations and similar laws and regulations established and enforced by comparable foreign regulatory authorities, report financial information or data accurately or disclose unauthorized activities to us. Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. It is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business and results of operations, including the imposition of significant fines or other sanctions.

Product liability lawsuits against us could cause us to incur substantial liabilities and to limit commercialization of any products that we may develop.

We face an inherent risk of product liability exposure related to the testing of our product candidates in human clinical trials and will face an even greater risk if we commercially sell any products that we may develop. Product liability claims may be brought against us by subjects enrolled in our clinical trials, patients, healthcare providers or others using, administering or selling our products. If we cannot successfully defend ourselves against claims that our product candidates or products caused injuries, we could incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for any product candidates or products that we may develop;
- termination of clinical trial sites or entire trial programs;
- injury to our reputation and significant negative media attention;
- withdrawal of clinical trial participants;
- significant costs to defend the related litigation;
- substantial monetary awards to trial subjects or patients;
- loss of revenue;
- diversion of management and scientific resources from our business operations; and
- the inability to commercialize any products that we may develop.

We currently hold product liability insurance coverage at a level that we believe is customary for similarly situated companies and adequate to provide us with insurance coverage for foreseeable risks, but which may not be adequate to cover all liabilities that we may incur. Insurance coverage is increasingly expensive. We may not be able to maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise. We intend to expand our insurance coverage for products to include the sale of commercial products if we obtain regulatory approval for our product candidates in development, but we may be unable to obtain commercially reasonable product liability insurance for any products that receive regulatory approval. Large judgments have been awarded in class action lawsuits based on drugs that had unanticipated side effects. A successful product liability claim or series of claims brought against us, particularly if judgments exceed our insurance coverage, could decrease our cash and adversely affect our business.

If we and our third-party manufacturers fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could have a material adverse effect on the success of our business.

We and our third-party manufacturers are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Our operations involve the use of hazardous and flammable materials, including chemicals and biological materials. Our operations also produce hazardous waste products. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our or our third-party manufacturers' use of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties.

Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials with a policy limit that we believe is customary for similarly situated companies and adequate to provide us with insurance coverage for foreseeable risks, this insurance may not provide adequate cover age against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us in connection with our storage or disposal of biological or hazardous materials.

In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our research, development or production efforts. Failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

Our business and operations would suffer in the event of computer system failures or security breaches.

Our internal computer systems, and those of MSK, our CROs, our CMOs, and other business vendors on which we rely, are vulnerable to damage from computer viruses, unauthorized access, natural disasters, fire, terrorism, war and telecommunication and electrical failures. We exercise little or no control over these third parties, which increases our vulnerability to problems with their systems. If such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our drug development programs. For example, the loss of clinical trial data from completed, ongoing or planned clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach results in a loss of or damage to our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability, the further development of our product candidates could be delayed and our business could be otherwise adversely affected.

Business disruptions could seriously harm our future revenues and financial condition and increase our costs and expenses.

Our operations could be subject to earthquakes, power shortages, telecommunications failures, water shortages, floods, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics and other natural or manmade disasters or business interruptions, for which we are predominantly self-insured. Two of our corporate locations are located in California, an area prone to earthquakes. The occurrence of any of these business disruptions could seriously harm our operations and financial condition and increase our costs and expenses. We rely on third-party manufacturers to produce our product candidates. Our ability to obtain clinical supplies of product candidates could be disrupted, if the operations of these suppliers are affected by a man-made or natural disaster or other business interruption. The ultimate impact on us, our significant suppliers and our general infrastructure is unknown, but our operations and financial condition could suffer in the event of a major earthquake, fire or other natural disaster.

Risks Related to Ownership of Our Common Stock

Our stock price has been and will likely continue to be volatile and may decline regardless of our operating performance.

Our stock price has fluctuated in the past and can be expected to be volatile in the future. From October 16, 2014, the first date of trading of our common stock, through December 31, 2015, the reported sale price of our common stock has fluctuated between $9.66 and $65.56 per share. The stock market in general and the market for biotechnology companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, investors may experience losses on their investment in our common stock. The market price of our common stock may be influenced by many factors, including the following:

- the success of competitive products or technologies;
- regulatory actions with respect to our product candidates or products or our competitors' product candidates or products;
- actual or anticipated changes in our growth rate relative to our competitors;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures, collaborations or capital commitments;
- results of clinical trials of our product candidates or those of our competitors;
- regulatory or legal developments in the United States and other countries;
- developments or disputes concerning patent applications, issued patents or other proprietary rights;
- the recruitment or departure of key personnel;
- the level of expenses related to any of our product candidates or clinical development programs;
- the results of our efforts to in-license or acquire additional product candidates or products;

- actual or anticipated changes in estimates as to financial results, development timelines or recommendations by securities analysts;
- variations in our financial results or those of companies that are perceived to be similar to us;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- inconsistent trading volume levels of our shares;
- announcement or expectation of additional financing efforts;
- sales of our common stock by us, our insiders or our other stockholders;
- changes in the structure of healthcare payment systems;
- market conditions in the pharmaceutical and biotechnology sectors;
- general economic, industry and market conditions; and
- the other risks described in this "Risk Factors" section.

We may be subject to securities litigation, which is expensive and could divert management attention.

The market price of our common stock has been volatile, and in the past companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

Our principal stockholders and management own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.

As of December 31, 2015, our executive officers, directors and stockholders that we have concluded are affiliates of us together owned approximately 33% of our outstanding voting stock, assuming no exercise of outstanding options. These stockholders may be able to determine the outcome of all matters requiring stockholder approval. For example, these stockholders may be able to control elections of directors, amendments of our organizational documents, or approval of any merger, sale of assets, or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for our common stock that you may feel are in your best interest as one of our stockholders. The interests of this group of stockholders may not always coincide with your interests or the interests of other stockholders and they may act in a manner that advances their best interests and not necessarily those of other stockholders, including seeking a premium value for their common stock, and might affect the prevailing market price for our common stock.

Sales of a substantial number of shares of our common stock in the public market could cause our stock price to fall.

Sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock. Moreover, certain holders of shares of our common stock will have rights, subject to certain conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. We have registered and intend to continue to register all shares of common stock that we may issue under our equity compensation plans. Once we register these shares, they can be freely sold in the public market upon issuance, subject to volume limitations applicable to affiliates.

We are an "emerging growth company" and are taking advantage of reduced disclosure and governance requirements applicable to emerging growth companies, which could result in our common stock being less attractive to investors.

We are an "emerging growth company," as defined in the JOBS Act, and we are taking advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We cannot predict if investors will find our common stock less attractive because we will rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile. We may take advantage of these reporting exemptions until we are no longer an emerging growth company, which in certain circumstances could be for up to five years. We will cease to be an "emerging growth

company" upon the earliest of: (1) December 31, 2019; (2) the last day of the first fiscal year in which our annual gross revenues are $1 billion or more; (3) the date on which we have, during the previous rolling three-year period, issued more than $1 billion in non-convertible debt securities; and (4) the date on which we are deemed to be a "large accelerated filer" as defined in the Exchange Act.

Our status as an "emerging growth company" under the JOBS Act may make it more difficult to raise capital as and when we need it.

Because of the exemptions from various reporting requirements provided to us as an "emerging growth company" we may be less attractive to investors and it may be difficult for us to raise additional capital as and when we need it. Investors may be unable to compare our business with other companies in our industry if they believe that our financial accounting is not as transparent as other companies in our industry. If we are unable to raise additional capital as and when we need it, our financial condition and results of operations may be materially and adversely affected.

We have incurred and will continue to incur increased costs as a result of being a public company and our management expects to devote substantial time to public company compliance programs.

As a public company, we have incurred and will continue to incur significant legal, accounting and other expenses. We are subject to the reporting requirements of the Exchange Act, which require, among other things, that we file with the SEC annual, quarterly and current reports with respect to our business and financial condition. In addition, the Sarbanes-Oxley Act, as well as rules subsequently adopted by the SEC and The Nasdaq Stock Market to implement provisions of the Sarbanes-Oxley Act, impose significant requirements on public companies, including requiring establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices. Further, pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, the SEC has adopted and will adopt additional rules and regulations, such as mandatory "say on pay" voting requirements, that will apply to us when we cease to be an emerging growth company. Stockholder activism, the current political environment and the potential for future regulatory reform may lead to substantial new regulations and disclosure obligations, which may lead to additional compliance costs and impact the manner in which we operate our business in ways we cannot currently anticipate.

The rules and regulations applicable to public companies have substantially increased our legal and financial compliance costs and make some activities more time-consuming and costly. To the extent these requirements divert the attention of our management and personnel from other business concerns, they could have a material adverse effect on our business, financial condition and results of operations. The increased costs will decrease our net income or increase our net loss, and may require us to reduce costs in other areas of our business or increase the prices of our products or services. For example, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to incur substantial costs to maintain the same or similar coverage. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers.

We previously identified and remediated a material weakness in our internal control over financial reporting. We may identify additional material weaknesses in the future that may cause us to fail to meet our reporting obligations or result in material misstatements of our financial statements. If we fail to remediate any material weaknesses or if we fail to establish and maintain effective control over financial reporting, our ability to accurately and timely report our financial results could be adversely affected.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with generally accepted accounting principles in the United States. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of annual or interim financial statements will not be prevented or detected on a timely basis.

Prior to the completion of our initial public offering, we were a private company with limited accounting personnel and other resources to address our internal control over financial reporting. During the course of preparing for our initial public offering, we determined that we had a material weakness in our internal control over financial reporting as of December 31, 2013 relating to the design and operation of our closing and financial reporting processes.

While we have remediated this weakness, if we are unable to successfully maintain effective control over financial reporting, and if we are unable to produce accurate and timely financial statements, our stock price may be adversely affected and we may be unable to maintain compliance with applicable listing requirements of The Nasdaq Stock Market.

Because we do not anticipate paying any cash dividends on our capital stock in the foreseeable future, capital appreciation, if any, will be your sole source of potential gain.

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. In addition, the terms of any future debt agreements may preclude us from paying dividends. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

Future sales and issuances of our common stock or rights to purchase common stock, including pursuant to our equity incentive plans, could result in additional dilution of the percentage ownership of our stockholders and could cause our stock price to fall.

We expect that significant additional capital will be needed in the future to continue our planned operations. To raise capital, we may sell substantial amounts of common stock or securities convertible into or exchangeable for common stock. These future issuances of common stock or common stock-related securities, together with the exercise of outstanding options and any additional shares issued in connection with acquisitions or in-licenses, if any, may result in material dilution to our investors. Such sales may also result in material dilution to our existing stockholders, and new investors could gain rights, preferences and privileges senior to those of holders of our common stock.

Pursuant to our equity incentive plans, our compensation committee is authorized to grant equity-based incentive awards to our employees, non-employee directors and consultants. Future grants of restricted stock units, or RSUs, options and other equity awards and issuances of common stock under our equity incentive plans will result in dilution and may have an adverse effect on the market price of our common stock.

Some provisions of our charter documents and Delaware law may have anti-takeover effects that could discourage an acquisition of us by others, even if an acquisition would be beneficial to our stockholders and may prevent attempts by our stockholders to replace or remove our current management.

Provisions in our amended and restated certificate of incorporation, or certificate of incorporation, and amended and restated bylaws, or bylaws, as well as provisions of Delaware law, could make it more difficult for a third party to acquire us or increase the cost of acquiring us, even if doing so would benefit our stockholders, or remove our current management. These include provisions that will:

- permit our board of directors to issue up to 20,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate;
- provide that all vacancies on our board of directors, including as a result of newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide advance notice in writing, and also specify requirements as to the form and content of a stockholder's notice;
- not provide for cumulative voting rights, thereby allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election; and
- provide that special meetings of our stockholders may be called only by the board of directors or by such person or persons requested by a majority of the board of directors to call such meetings.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, who are responsible for appointing the members of our management. Because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which may discourage, delay or prevent someone from acquiring us or merging with us whether or not it is desired by or beneficial to our stockholders. Under Delaware law, a corporation may not, in general, engage in a business combination with any holder of 15% or more of its capital stock unless the holder has held the stock for three years or, among other things, the board of directors has approved the transaction. Any provision of our amended and restated certificate of incorporation or amended and restated bylaws or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock, and could also affect the price that some investors are willing to pay for our common stock.

If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our stock price and trading volume could decline.

The trading market for our common stock will depend in part on the research and reports that securities or industry analysts publish about us or our business. In the event securities or industry analysts who cover us downgrade our stock or publish inaccurate or unfavorable research about our business, our stock price would likely decline. If one or more of these analysts cease coverage of our company or fail to publish reports on us regularly, demand for our stock could decrease, which might cause our stock price and trading volume to decline.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our corporate headquarters are currently located in South San Francisco, California and consist of 7,038 square feet of leased office space under a sublease that expires in January 2017. Our research and development facility is located in Westlake Village, California and consists of approximately 15,380 square feet of leased office space under a lease that expires in April 2019.

In December 2015, we entered into a lease agreement for approximately 13,670 square feet of office space in South San Francisco, California, which is intended to be our new corporate headquarters. The lease is expected to expire in April 2021.

Item 3. Legal Proceedings

None.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our common stock has been listed on The Nasdaq Stock Market under the symbol "ATRA" since October 16, 2014. Prior to that time, there was no public market for our common stock. The following table sets forth for the indicated periods the high and low intra-day sales prices per share for our common stock on The Nasdaq Stock Market.

Year ended December 31, 2014	High	Low
Fourth Quarter (beginning October 16, 2014)	$ 35.45	$ 9.66

Year ended December 31, 2015	High	Low
First Quarter	$ 43.66	$ 17.20
Second Quarter	$ 64.35	$ 36.00
Third Quarter	$ 65.56	$ 30.49
Fourth Quarter	$ 40.80	$ 19.50

On February 15, 2016, there were 10 stockholders of record of our common stock and the closing price of our common stock was $15.41 per share as reported on The Nasdaq Stock Market. Because many of our shares are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of stockholders represented by these record holders.

Dividend Policy

We have never declared or paid cash dividends on our capital stock. We currently intend to retain any future earnings for use in the operation of our business and do not intend to declare or pay any cash dividends in the foreseeable future. Any further determination to pay dividends on our capital stock will be at the discretion of our board of directors, subject to applicable laws, and will depend on our financial condition, results of operations, capital requirements, general business conditions and other factors that our board of directors considers relevant.

Purchases of Equity Securities by the Issuer or Affiliated Purchasers

There were no repurchases of shares of common stock made during the year ended December 31, 2015.

Securities Authorized for Issuance under Equity Compensation Plans

Information about our equity compensation plans is incorporated herein by reference to Item 12 of Part III of this Annual Report on Form 10-K.

Use of Proceeds from Initial Public Offering of Common Stock

In October 2014, we completed our initial public offering in which 5,750,000 shares of our common stock (inclusive of 750,000 shares from the full exercise by the underwriters of their option to purchase additional shares) were sold at a price of $11.00 per share, resulting in net proceeds of $56.5 million. All of the shares issued and sold in the offering were registered under the Securities Act pursuant to a Registration Statement on Form S-1 (File No.333-196936), which was declared effective by the SEC on October 15, 2014. There was no material change in the planned use of proceeds from our initial public offering as described in the final prospectus dated October 15, 2014 and filed with the SEC on October 16, 2014. As of March 4, 2016, substantially all of the net proceeds from the initial public offering had been utilized.

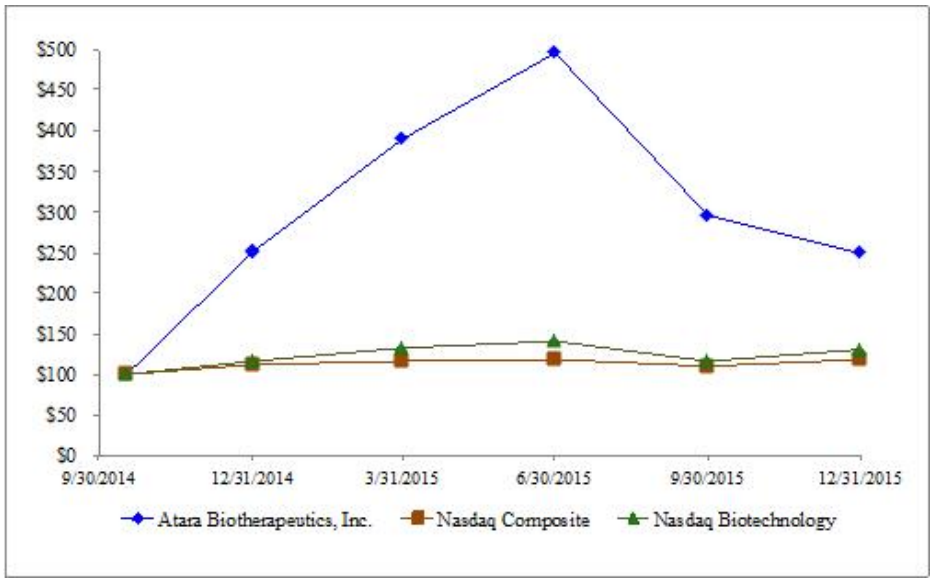
Stock Performance Graph

Set forth below is a graph comparing the cumulative total return on an indexed basis of a $100 investment in the Company's common stock, the Nasdaq Composite Index and the Nasdaq Biotechnology Index commencing on October 16, 2014 (the date our common stock began trading on The Nasdaq Stock Market) and continuing through December 31, 2015. The graph assumes our closing sale price on October 16, 2014 of $10.65 per share as the initial value of our common stock for indexing purposes. Points on the graph represent the performance as of the last business day of each of the fiscal quarters indicated.

This performance graph shall not be deemed "soliciting material" or to be "filed" with the SEC for purposes of Section 18 of the Exchange Act or incorporated by reference into any filing of Atara Biotherapeutics, Inc. under the Securities Act or the Exchange Act, except to the extent we specifically incorporate it by reference into such filing. The past performance of our common stock is no indication of future performance.

COMPARISON OF CUMULATIVE TOTAL RETURN*

Among Atara Biotherapeutics, Inc., the Nasdaq Composite Index and the Nasdaq Biotechnology Index



* Assumes $100 invested in our common stock or the related index on October 16, 2014.

Item 6. Selected Consolidated and Combined Financial Data

The following selected consolidated and combined financial data of the Company for each of the periods indicated are derived from the Company's audited consolidated and combined financial statements. The consolidated and combined financial statements of the Company as of December 31, 2015 and 2014 and for the years ended December 31, 2015, 2014 and 2013, and the related reports of the independent registered public accounting firm are included elsewhere in this Annual Report on Form 10-K. The data presented below should be read in conjunction with the Company's financial statements, the notes thereto, and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this report.

Consolidated and Combined Statements of Operations and Comprehensive Loss Data:	Year ended December 31, 2015	Year ended December 31, 2014	Year ended December 31, 2013	Period from Aug. 22, 2012 (Inception) to December 31, 2012
	(In thousands, except per share amounts)			
Operating expenses:				
Research and development	$ 41,618	$ 14,380	$ 4,306	$ 241
Research and development costs paid to Amgen	—	1,066	553	3,018
General and administrative	16,830	12,710	3,756	834
Total operating expenses	58,448	28,156	8,615	4,093
Loss from operations	(58,448)	(28,156)	(8,615)	(4,093)
Interest and other income, net	1,218	125	12	—
Loss before provision for income taxes	(57,230)	(28,031)	(8,603)	(4,093)
Provision (benefit) for income taxes	(9)	(25)	170	17
Net loss	$ (57,221)	$ (28,006)	$ (8,773)	$ (4,110)
Other comprehensive loss:				
Unrealized loss on available-for-sale securities	(418)	(100)	—	—
Comprehensive loss	$ (57,639)	$ (28,106)	$ (8,773)	$ (4,110)
Basic and diluted net loss per common share	$ (2.24)	$ (5.62)	$ (9.08)	$ (5.60)

Consolidated and Combined Balance Sheet Data:	As of December 31, 2015	2014	2013	2012
	(In thousands)			
Cash, cash equivalents and short-term investments	$ 320,482	$ 104,116	$ 51,615	$ 4,207
Working capital	$ 314,888	$ 103,302	$ 50,284	$ 2,940
Total assets	$ 324,975	$ 106,122	$ 51,828	$ 4,290
Convertible preferred stock	$ —	$ —	$ 61,091	$ 6,711
Total stockholders' equity (deficit)	$ 315,100	$ 103,182	$ (11,017)	$ (3,727)

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

You should read the following discussion and analysis of our financial condition and results of operations together with our audited consolidated and combined financial statements and related notes included elsewhere in this Annual Report on Form 10-K. This discussion and other parts of this Annual Report contain forward-looking statements that involve risk and uncertainties, such as statements of our plans, objectives, expectations and intentions. As a result of many factors, including those factors set forth in the "Risk Factors" section of this Annual Report, our actual results could differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Overview

We are a clinical-stage biopharmaceutical company focused on developing meaningful therapies for patients with severe and life-threatening diseases that have been underserved by scientific innovation. We have two groups of product candidates: (a) allogeneic or third-party derived antigen-specific T-cells, and (b) molecularly targeted biologics.

T-cells are a type of white blood cell, and cytotoxic T-cells, otherwise known as cytotoxic T lymphocytes, or CTLs, have the ability to kill cancer cells. Our T-cell product candidates arise from a platform technology designed to produce off-the-shelf, partially human leukocyte antigen, or HLA, matched cellular therapeutics. We licensed rights to these product candidates from Memorial Sloan Kettering Cancer Center, or MSK, in June 2015. Our initial T-cell product candidates target viral- or cancer-specific antigens and are designed to harness the body's immune system to counteract specific viral infections and cancers. Our most advanced T-cell product candidate, EBV-CTL, is in Phase 2 clinical trials for malignancies associated with Epstein Barr Virus, or EBV, including EBV-associated post-transplant lymphoproliferative disorders, or EBV-PTLD. EBV-PTLD is a cancer affecting some patients who have received an allogeneic hematopoietic cell transplant, or HCT, a solid organ transplant, or SOT, or are otherwise immunocompromised. Our second T-cell product candidate, CMV-CTL, is in Phase 2 clinical trials for cytomegalovirus, or CMV, an infection that occurs in some patients who have received an HCT or SOT or are otherwise immunocompromised. Our third T-cell product candidate, WT1-CTL, targets cancers expressing the antigen Wilms Tumor 1, or WT1, and is currently in Phase 1 clinical trials. In addition, we entered into a sponsored research collaboration with MSK to discover and develop additional T-cell product candidates. In October 2015, we entered into exclusive license and research agreements with another academic institution. These agreements enable us to access a technology complementary to that which was licensed from MSK and to pursue development of EBV and CMV-CTLs for other indications such as nasopharyngeal carcinoma, or NPC, gastric cancer, and multiple sclerosis, or MS. We are working with this academic institution on the submission to the FDA of one or more INDs for these new indications.

Our molecularly targeted product candidates are biologics that inhibit myostatin and activin, members of the Transforming Growth Factor-Beta, or TGF-ß, protein superfamily, which play roles in the growth and maintenance of muscle and many other body tissues. Our lead molecularly targeted product candidate is STM 434. We commenced a Phase 1 clinical trial of STM 434 for ovarian cancer and other solid tumors in 2014. We have five additional molecularly targeted product candidates that modulate the TGF-ß pathway in preclinical development.

In February 2015, the U.S. Food and Drug Administration, or FDA, granted breakthrough therapy designation for EBV-CTL in the treatment of rituximab-refractory EBV-PTLD after HCT. Breakthrough therapy designation is an FDA process designed to accelerate the development and review of drugs intended to treat a serious condition when early trials show that the drug may be substantially better than current treatment. In June 2015, we met with the FDA to discuss late-stage development to support a potential approval in this indication. Based on guidance from the FDA, we submitted a special protocol assessment, or SPA, for a single arm pivotal trial in rituximab-refractory EBV-PTLD after HCT. We received feedback from the FDA regarding this SPA in which the FDA indicated that a single arm trial with response rate as the primary endpoint may provide an adequate basis for approval but it would be unlikely to grant an SPA for our proposed trial. We intend to continue the dialogue with the FDA regarding this trial design under breakthrough therapy designation and expect to initiate this pivotal trial towards the end of 2016. Additionally, we also intend to initiate a randomized pivotal trial in patients with EBV-PTLD after SOT towards the end of 2016. In February 2016, the FDA granted orphan drug designation for EBV-CTL for the treatment of patients with EBV-PTLD after HCT or SOT. We expect to meet with the FDA in the middle of 2016 to discuss late phase development with CMV-CTL to support approval.

While we evaluate the path to registration for both EBV-CTL and CMV-CTL in these initial indications, we intend to concurrently explore the clinical utility of these T-cell product candidates or other cellular therapies in other relevant disease states to expand their potential applicability. In addition, we believe that T-cells can be directed at a broad range of other targets to create future product candidates. We believe that viral antigens are well suited to adoptive immunotherapy given that people with normal immune systems are able to mount robust responses to these viral targets, but immunocompromised patients and some cancer patients are not.

Our lead molecularly targeted product candidate, STM 434, is in a Phase 1 clinical trial that will enroll approximately 70 patients with ovarian cancer and other solid tumors. In October 2015, we received orphan drug designation from the FDA for ovarian cancer. STM 434 is a soluble ActR2B receptor that binds Activin A. We are testing the potential use of Activin A as a biomarker in our Phase 1 clinical trial. We believe that novel therapies for clear cell and granulosa cell tumors could qualify for breakthrough therapy designation. Based on its mechanism of action, we also believe that STM 434 has the potential to be the first product to target tumor growth and proliferation through the inhibition of Activin A.

STM 434 is a novel molecule with a well-characterized mechanism of action. It was developed initially, along with our five other in-licensed molecularly targeted biologic product candidates, at Amgen. Taken together, we believe these product candidates constitute a pipeline of biologics that have benefited from years of investment, resulting in a large patent portfolio, with broad preclinical testing. We are evaluating the remaining five pre-clinical molecularly targeted product candidates to determine the best path forward. Where appropriate, we intend to conduct preclinical studies and file investigational new drug applications, or INDs, with the FDA for these candidates.

In December 2015, we announced results from the PINTA 745 Phase 2 proof-of-concept clinical trial for PINTA 745 for the treatment of protein energy wasting, or PEW, in patients with end stage renal disease, or ESRD. The trial did not meet its primary endpoint, defined as the percent change from baseline in lean body mass as measured by dual energy x-ray absorptiometry at week 12 following weekly treatment with PINTA 745. PINTA 745 also did not improve physical function, measures of glycemic control and markers of inflammation. There were no treatment related serious adverse events observed in the trial. We intend to complete the trial as designed; however, as a consequence of these results, we have suspended further clinical development of PINTA 745.

We have a limited operating history. Since our inception in 2012, we have devoted substantially all of our resources to identify, acquire and develop our product candidates, including conducting preclinical studies and clinical trials and providing general and administrative support for these operations.

In February 2015, we completed a follow-on offering of 4,147,358 shares of common stock at an offering price to the public of $18.00 per share. We received net proceeds of approximately $69.5 million after deducting underwriting discounts and commissions and offering expenses.

In July 2015, we completed a follow-on offering of 3,980,768 shares of common stock at an offering price to the public of $52.00 per share. We received net proceeds of approximately $193.9 million, after deducting underwriting discounts and commissions and offering expenses.

We have never generated revenues and have incurred losses since inception. Our net losses were $57.2 million, $28.0 million and $8.8 million for the years ended December 31, 2015, 2014 and 2013, respectively. As of December 31, 2015, we had an accumulated deficit of $98.1 million. Substantially all of our net losses have resulted from costs incurred in connection with our research and development programs and from general and administrative expenses associated with our operations. As of December 31, 2015, our cash, cash equivalents and short-term investments totaled $320.5 million, which we intend to use to fund our operations.

Financial Overview

Basis of Presentation and Recapitalization

Atara, Nina, Pinta and Santa Maria were incorporated in August 2012. Atara was originally formed as a management company with the sole purpose of providing management, financial and administrative services for Nina, Pinta and Santa Maria. Prior to our recapitalization on March 31, 2014, the results of operations and financial condition of the four companies are presented on a combined basis as they were under common management and common ownership, with intercompany transactions eliminated.

On March 31, 2014, we implemented a recapitalization in which (a) all the outstanding shares of common stock of Atara were cancelled and forfeited by existing stockholders and (b) the stockholders of Nina, Pinta and Santa Maria exchanged their existing common and convertible preferred stock for newly-issued shares of Atara, in the same proportions and with the same rights and privileges as the outstanding capital stock of Nina, Pinta and Santa Maria, on a collective nine-for-one basis. Atara assumed the separate equity incentive plans sponsored by Nina, Pinta and Santa Maria and all outstanding restricted stock units ("RSUs") and restricted stock awards ("RSAs") granted under such plans. At the time of RSU settlement, each employee or consultant will receive one share of common stock of Atara for three RSUs in each of Nina, Pinta, and Santa Maria (collectively, a nine-for-one exchange). We refer to this transaction as our recapitalization. As a result of the recapitalization, Nina, Pinta and Santa Maria became wholly owned subsidiaries of Atara effective March 31, 2014. The recapitalization was accounted for as a combination of businesses under common control and the assets and liabilities of Nina, Pinta and Santa Maria were recorded by Atara at their historical carrying amounts on March 31, 2014. Beginning March 31, 2014, our financial statements are presented on a consolidated basis, with all intercompany transactions eliminated. Except as otherwise noted, all share and per share amounts presented in this "Management's Discussion and Analysis of Financial Condition and Results of Operations" give effect to the recapitalization.

Revenues

To date, we have not generated any revenues. We do not expect to receive any revenues from any product candidates that we develop until we obtain regulatory approval and commercialize our products or enter into collaborative agreements with third parties.

Research and Development Expenses

The largest component of our total operating expenses since inception has been our investment in research and development activities, including the preclinical and clinical development of our product candidates. Research and development expenses consist of costs incurred in performing research and development activities, including compensation and benefits for research and development employees, including stock-based compensation, an allocation of facility and overhead expenses, expenses incurred under agreements with contract research organizations and investigative sites that conduct clinical trials and preclinical studies, the costs of acquiring and manufacturing clinical trial materials and other supplies and costs associated with product development efforts, preclinical activities and regulatory operations. Research and development costs are expensed as incurred.

We plan to increase our research and development expenses for the foreseeable future as we continue the development of our product candidates. Our current planned research and development activities include the following:

- advancing EBV-CTL into Phase 3 clinical trials for the treatment of EBV-PTLD after HCT and SOT;
- developing CMV-CTL in refractory CMV infection after HCT;
- continuing development of WT1-CTL in relapsed refractory multiple myeloma, including plasma cell leukemia;
- collaborating with MSK in the discovery and development of additional T-cell programs;
- expanding our licensed T-cell platforms into other indications or viral targets;
- completing our Phase 1 clinical trial of STM 434;
- process development and manufacturing of drug supply to support clinical trials and IND-enabling studies;
- evaluating our other molecularly targeted product candidates and advancing them into the clinic as appropriate; and
- leveraging our relationships and experience to in-license or acquire additional product candidates or technologies.

In addition, we believe it is important to invest in the development of new product candidates to continue to build the value of our product candidate pipeline and our business. We plan to continue to advance our most promising early product candidates into preclinical development with the objective to advance these early-stage programs to human clinical trials over the next several years.

Our expenditures on current and future preclinical and clinical development programs are subject to numerous uncertainties in timing and cost to completion. The duration, costs, and timing of clinical trials and development of our product candidates will depend on a variety of factors, including:

- the scope, rate of progress, and expenses of our ongoing as well as any additional clinical trials and other research and development activities;
- future clinical trial results;
- uncertainties in clinical trial enrollment rates or discontinuation rates of patients;
- potential additional safety monitoring or other studies requested by regulatory agencies;
- significant and changing government regulation; and
- the timing and receipt of any regulatory approvals.

The process of conducting the necessary clinical research to obtain FDA approval is costly and time consuming and the successful development of our product candidates is highly uncertain. The risks and uncertainties associated with our research and development projects are discussed more fully in the section of this report titled “1A. Risk Factors.” As a result of these risks and uncertainties, we are unable to determine with any degree of certainty the duration and completion costs of our research and development projects, or if, when, or to what extent we will generate revenues from the commercialization and sale of any of our product candidates that obtain regulatory approval. We may never succeed in achieving regulatory approval for any of our product candidates.

General and Administrative Expenses

General and administrative expenses consist primarily of personnel costs, allocated facilities costs and other expenses for outside professional services, including legal, patent costs, human resources, and audit and accounting services. Personnel costs consist of salaries, benefits and stock-based compensation. We anticipate that our general and administrative expenses will continue to increase in the future as we increase our headcount to support our continued research and development and potential commercialization of our product candidates.

Interest and Other Income, net

Interest and other income, net consists primarily of interest earned on our cash, cash equivalents and short-term investments.

Critical Accounting Policies and Significant Judgments and Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our consolidated and combined financial statements, which have been prepared in accordance with GAAP. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities and expenses. On an on-going basis, we evaluate our critical accounting policies and estimates. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable in the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions and conditions. Our significant accounting policies are more fully described in Note 2 of the accompanying consolidated and combined financial statements.

Accrued Research and Development Expenses

As part of the process of preparing our financial statements, we are required to estimate and accrue expenses, the largest of which is related to research and development expenses, including those related to clinical trials and drug manufacturing. This process involves reviewing contracts and purchase orders, identifying and evaluating the services that have been performed on our behalf, and estimating the associated cost incurred for the services when we have not yet been invoiced or otherwise notified of the actual costs.

Costs for preclinical study and clinical trial activities are recognized based on an evaluation of our vendors' progress towards completion of specific tasks, using data such as patient enrollment, clinical site activations or information provided to us by our vendors regarding their actual costs incurred. Payments for these activities are based on the terms of individual contracts and payment timing may differ significantly from the period in which the services were performed. We determine accrual estimates through reports from and discussions with applicable personnel and outside service providers as to the progress or state of completion of trials, or the services completed. Our estimates of accrued expenses as of each balance sheet date are based on the facts and circumstances known at the time. For the years ended December 31, 2015 and 2014, there were no material changes from our estimates of accrued research and development expenses. Costs that are paid in advance of performance are deferred as a prepaid expense and amortized over the service period as the services are provided.

Stock-based Compensation

We account for stock-based compensation expense, including the expense of restricted stock agreements, or RSAs, and grants of restricted stock units, or RSUs, and stock options that may be settled in shares of our common stock, based on the fair values of the equity instruments issued. The fair value is determined on the measurement date, which is generally the date of grant for employee awards and the date when the service performance is completed for non-employees. The fair value for our RSAs is their intrinsic value, which is the difference between the fair value of the underlying stock at the measurement date and the purchase price. The fair value of our RSUs is the fair value of the underlying stock at the measurement date. The fair value for our stock option awards is determined at the grant date using the Black-Scholes valuation model. For employees' awards with performance-based vesting criteria, we assess the probability of the achievement of the performance conditions at the end of each reporting period and recognize the share-based compensation costs when it becomes probable that the performance conditions will be met. For non-employees' awards with performance-based vesting criteria, we assess all possible outcomes at the end of each reporting period and recognize the lowest aggregate fair value in the range of possible outcomes. The lowest value in the range of possible outcomes may be zero. For awards that are subject to both service and performance conditions, no expense is recognized until it is probable that performance conditions will be met. Stock-based compensation expense for awards with time-based vesting criteria is recognized as expense on a straight-line basis over the requisite service period. Stock-based compensation for awards with performance and other vesting criteria is recognized as expense under the accelerated graded vesting model.

Key assumptions for the Black-Scholes valuation model used for employee stock awards include:

Expected term – The expected term assumption represents the period that our stock-based awards are expected to be outstanding and is determined using the simplified method.

Expected volatility – Expected volatility is estimated using comparable public companies' volatility for similar terms.

Expected dividend – We have not historically declared or paid dividends to our stockholders and have no plans to pay dividends; therefore we have assumed an expected dividend yield of 0%.

Risk-free interest rate – The risk-free interest rate is based on the yields of US Treasury securities with expected terms similar to that of the associated award.

The fair value of non-employee stock options is estimated using the Black-Scholes valuation model with assumptions generally consistent with those used for employee stock options, with the exception of the expected term, which is the remaining contractual life at each measurement date.

Prior to our initial public offering in October 2014, due to the absence of an active market for our common stock, we estimated the fair value of our common stock in accordance with the framework of the American Institute of Certified Public Accountants Technical Practice Aid, Valuation of Privately-Held Company Equity Securities Issued as Compensation. Each valuation included estimates and assumptions that required management's judgment, including assumptions regarding the probability and estimated time to completion of our initial public offering. Subsequent to the completion of our initial public offering in October 2014, the fair value of our common stock is based on observable market prices.

Prior to our recapitalization in March 2014, we issued RSAs and RSUs for common stock of Nina, Pinta and Santa Maria to individuals who were employed by or served as consultants of Atara and provided services to Nina, Pinta and Santa Maria through Atara. Because these individuals were not employees of Nina, Pinta or Santa Maria, as these entities were not subsidiaries of Atara until the recapitalization, all of our RSAs and RSUs issued through the date of the recapitalization are deemed to have been issued to non-employees. As such, we determined the estimated fair value of the underlying common stock at the end of each period, as the services were performed.

Income Taxes

We recognize deferred income taxes for temporary differences between the basis of assets and liabilities for financial statement and income tax purposes. We periodically evaluate the positive and negative evidence bearing upon the realizability of our deferred tax assets. Based upon the weight of available evidence, which includes our historical operating performance, reported cumulative net losses since inception and difficulty in accurately forecasting our future results, we have maintained a full valuation allowance on the net deferred tax assets for all periods presented. We intend to maintain a full valuation allowance on the U.S. deferred tax assets for the foreseeable future, until sufficient positive evidence exists to support reversal of the valuation allowance.

As of December 31, 2015, we had federal and state net operating loss carryforwards for tax return purposes of $68.8 million and $68.7 million, respectively, which, if not utilized, begin to expire in various amounts beginning in 2032.

Under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, our ability to utilize net operating loss carryforwards or other tax attributes, such as research tax credits, in any taxable year may be limited if we have experienced an "ownership change." Generally, a Section 382 "ownership change" occurs if one or more stockholders or groups of stockholders who owns at least 5% of a corporation's stock increases its ownership by more than 50 percentage points over its lowest ownership percentage within a specified testing period. Similar rules may apply under state tax laws.

We have completed a Section 382 study of transactions in our stock through December 31, 2015. The study concluded that we have experienced at least one ownership change since inception and that our utilization of net operating loss carryforwards will be subject to annual limitations. Further, other provisions of the Code may limit our ability to utilize federal net operating losses incurred before the recapitalization to offset income or gain realized after the recapitalization unless such income or gain is realized by the same entity that originally incurred such losses. However, it is not expected that these limitations will result in the expiration of tax attribute carryforwards before they are utilized.

Our unrecognized tax benefits increased by $2.7 million during the year ended December 31, 2015 as a result of current year tax positions. Of the $4.3 million cumulative unrecognized tax benefits as of December 31, 2015, $0.1 million, if recognized, would affect the effective tax rate due to the valuation allowance that currently offsets deferred tax assets. We recognize interest and penalties related to uncertain tax positions as part of the income tax provision and, to date, such interest and penalties have not been material. We are not aware of any items that will significantly increase or decrease our unrecognized tax benefits in the next 12 months.

Emerging Growth Company Status

We are an "emerging growth company" as defined in the JOBS Act, and therefore we may take advantage of certain exemptions from various public company reporting requirements. As an "emerging growth company",

- we will avail ourselves of the exemption from the requirement to obtain an attestation and report from our auditors on the assessment of our internal control over financial reporting pursuant to the Sarbanes-Oxley Act;
- we will provide less extensive disclosure about our executive compensation arrangements; and
- we will not require stockholder non-binding advisory votes on executive compensation or golden parachute arrangements.

However, we are choosing to irrevocably opt out of the extended transition periods available under the JOBS Act for complying with new or revised accounting standards. We will remain an "emerging growth company" for up to five years, although we will cease to be an "emerging growth company" upon the earliest of: (1) December 31, 2019; (2) the last day of the first fiscal year in which our annual gross revenues are $1 billion or more; (3) the date on which we have, during the previous rolling three-year period, issued more than $1 billion in non-convertible debt securities; and (4) the date on which we are deemed to be a "large accelerated filer" as defined in the Exchange Act.

Results of Operations

Comparison of the Years Ended December 31, 2015, 2014 and 2013

Research and development expenses

Research and development expenses for the periods indicated were as follows:

	Year ended December 31,			Increase (Decrease)	
	2015	2014	2013	2014 to 2015	2013 to 2014
			(in thousands)		
Research and development	$ 41,618	$ 14,380	$ 4,306	$ 27,238	$ 10,074
Research and development costs paid to Amgen	—	1,066	553	(1,066)	513
Total research and development	$ 41,618	$ 15,446	$ 4,859	$ 26,172	$ 10,587

Research and development costs paid to Amgen in 2014 comprise a $1.0 million milestone payment and $0.1 million for clinical services. The payments to Amgen in 2013 relate to the purchase of clinical supplies. Amgen is no longer considered as a related party as it has no significant influence on our operations.

Research and development expenses by program for the periods indicated were as follows:

	Year ended December 31,			Increase (Decrease)	
	2015	2014	2013	2014 to 2015	2013 to 2014
			(in thousands)		
EBV-CTL	$ 970	$ —	$ —	$ 970	$ —
CMV-CTL	78	—	—	78	—
Other T-cell program expenses	9,123	2,000	—	7,123	2,000
PINTA 745	5,651	2,311	1,658	3,340	653
STM 434	5,370	4,389	1,936	981	2,453
ATA 842 and other molecular programs	7,490	624	16	6,866	608
Employee and overhead costs	12,936	6,122	1,249	6,814	4,873
Total research and development	$ 41,618	$ 15,446	$ 4,859	$ 26,172	$ 10,587

EBV-CTL costs were $1.0 million in 2015 as compared to zero in 2014, primarily due to development work undertaken following our exercise of the option to license this program from MSK in June 2015 (see below). We anticipate that EBV-CTL costs will increase significantly in 2016 due to the initiation of additional clinical trials for this product candidate.

CMV-CTL costs were $0.1 million in 2015 as compared to zero in 2014, primarily due to outside services costs associated with the program. We anticipate CMV-CTL costs to increase in 2016 due to support of our ongoing Phase 2 clinical trials.

Other T-cell program expenses increased by $7.1 million in 2015 as compared to 2014, primarily due to the cash payment to MSK of $4.5 million to exercise our option to license certain T-cell programs in June 2015, and $3.0 million paid to QIMR Berghofer for an exclusive, worldwide license to develop and commercialize allogeneic CTL therapy programs utilizing technology and know-how developed by QIMR Berghofer. In 2014, we recorded $2.0 million of expense for the exclusive option to license the T-cell programs from MSK, consisting of a $1.25 million cash payment and the issuance of 59,761 shares of our common stock to MSK with an estimated fair value of $0.75 million.

PINTA 745 costs increased by $3.3 million in 2015 as compared to 2014, and by $0.7 million in 2014 as compared to 2013. The increase in 2015 was primarily due to increased manufacturing costs and clinical trial expenses related to the Phase 2 trial of PINTA 745 for PEW in ESRD patients, which was unblinded in December 2015. Based on the results of the unblinding, we announced that we would be suspending further development of PINTA 745, and an expense of $0.9 million was recorded in December 2015 related to the termination of a manufacturing agreement for PINTA 745. The increase in 2014 was primarily due to a $0.9 million increase in outsourced development and third party costs to support the Phase 2 trial, partially offset by a $0.2 million decrease in outside consultant costs. We anticipate that although certain costs related to completion of the 20-week follow-up portion of this trial and certain other expenses will continue into the first half of 2016, the overall costs for this program will decrease significantly in 2016 as a whole.

STM 434 costs increased by $1.0 million in 2015 as compared to 2014, and by $2.5 million in 2014 as compared to 2013. The increase in 2015 was primarily due to manufacturing costs associated with the production of additional clinical drug supply and increased costs related to the Phase 1 clinical trial. The increase in 2014 was primarily due to an increase of $1.5 million in outside manufacturing costs for clinical drug supply and third party costs related to the Phase 1 clinical trial, which commenced in the second half of 2014, and a $1.0 million milestone payment to Amgen. We anticipate that STM 434 costs will increase in 2016 due to the continued enrollment of patients in the dose escalation portion of the Phase 1 trial and initiation of the dose expansion portion of the Phase 1 trial.

ATA 842 and other molecular program costs increased by $6.9 million in 2015 as compared to 2014 primarily due to a $4.4 million increase in manufacturing costs associated with the production of clinical drug supply and a $2.4 million increase in preclinical development costs. In 2014, ATA 842 and other molecular program costs consisted of manufacturing costs for clinical drug supply.

Employee and overhead costs increased by $6.8 million in 2015 as compared to 2014, and by $4.9 million in 2014 as compared to 2013. The increasing trend over the three years is primarily a result of higher compensation-related costs resulting from increased headcount in support our continuing expansion of research and development activities. In particular, payroll and employee stock-based compensation increased by $4.1 million and $1.6 million, respectively, in 2015 as compared to 2014, and by $1.5 million and $2.7 million, respectively, in 2014 as compared to 2013. We anticipate that employee and overhead costs will continue to increase in future periods as we continue to expand our research and development activities.

General and administrative expenses

General and administrative expenses for the periods indicated were as follows:

	Year ended December 31,			Increase (Decrease)	
	2015	2014	2013	2014 to 2015	2013 to 2014
			(in thousands)		
General and administrative	$ 16,830	$ 12,710	$ 3,756	$ 4,120	$ 8,954

General and administrative expenses increased by $4.1 million in 2015 as compared to 2014, and by $9.0 million in 2014 as compared to 2013. The increase in 2015 was primarily due to a $1.9 million increase in compensation-related costs driven by increased headcount, a $1.3 million increase in other outside services costs and a $1.2 million increase in higher corporate legal and patent fees. The increase in 2014 was primarily due to increases of $6.1 million in stock-based compensation costs and other payroll related expenses, $0.9 million in third-party consulting fees and $0.8 million in accounting fees associated with the audit of our financial statements and in preparation for our initial public offering. We expect that general and administrative costs will continue to increase in 2016 as we continue to expand our operations.

Quarterly Results of Operations Data (unaudited)

The following table sets forth our unaudited consolidated and combined statement of operations data for each of the eight quarters in the period ended December 31, 2015. The unaudited quarterly statement of operations data set forth below have been prepared on a basis consistent with our audited annual consolidated and combined financial statements in this Annual Report on Form 10-K and include, in our opinion, all normal recurring adjustments necessary for a fair statement of the financial information contained in those statements. Our historical results are not necessarily indicative of the results that may be expected in the future. The following quarterly financial data should be read in conjunction with our audited consolidated financial statements and the related notes included elsewhere in this Annual Report on Form 10-K.

	Three months ended			
	March 31	June 30	September 30	December 31
2015	(In thousands)			
Operating expenses:				
Research and development	$ 5,767	$ 11,507	$ 8,113	$ 16,231
General and administrative	3,544	3,601	4,146	5,539
Total operating expenses	9,311	15,108	12,259	21,770
Loss from operations	(9,311)	(15,108)	(12,259)	(21,770)
Interest and other income, net	153	163	380	522
Loss before provision for income taxes	(9,158)	(14,945)	(11,879)	(21,248)
Provision (benefit) for income taxes	2	—	(11)	—
Net loss	(9,160)	(14,945)	(11,868)	(21,248)
Other comprehensive loss:				
Unrealized gain (loss) on available-for-sale securities	82	(48)	117	(569)
Comprehensive loss	$ (9,078)	$ (14,993)	$ (11,751)	$ (21,817)
Basic and diluted net loss per common share	$ (0.42)	$ (0.62)	$ (0.43)	$ (0.75)

	Three months ended			
	March 31	June 30	September 30	December 31
2014	(In thousands)			
Operating expenses:				
Research and development	$ 2,981	$ 2,110	$ 4,241	$ 5,048
Research and development costs paid to Amgen	—	1,066	—	—
General and administrative	4,096	1,358	1,708	5,548
Total operating expenses	7,077	4,534	5,949	10,596
Loss from operations	(7,077)	(4,534)	(5,949)	(10,596)
Interest and other income, net	6	23	30	66
Loss before provision for income taxes	(7,071)	(4,511)	(5,919)	(10,530)
Provision (benefit) for income taxes	(22)	—	—	(3)
Net loss	(7,049)	(4,511)	(5,919)	(10,527)
Other comprehensive loss:				
Unrealized gain (loss) on available-for-sale securities	(11)	11	(11)	(89)
Comprehensive loss	$ (7,060)	$ (4,500)	$ (5,930)	$ (10,616)
Basic and diluted net loss per common share	$ (5.58)	$ (3.37)	$ (4.20)	$ (0.67)

Liquidity and Capital Resources

Sources of Liquidity

Since our inception in 2012, we have funded our operations primarily through the issuance of common and preferred stock.

We have incurred losses and negative cash flows from operations in each year since inception. As of December 31, 2015, we had an accumulated deficit of $98.1 million. It will be several years, if ever, before we have a product candidate ready for commercialization, and we anticipate that we will continue to incur losses for at least the next several years. We expect that our research and development and general and administrative expenses will continue to increase and, as a result, we will need additional

capital to fund our operations, which we may raise through a combination of equity offerings, debt financings, other third-party funding, marketing and distribution arrangements and other collaborations, strategic alliances and licensing arrangements.

Cash in excess of immediate requirements is invested in accordance with our written investment policy, primarily with a view to liquidity and capital preservation. Currently, our cash, cash equivalents and short-term investments are held in bank and custodial accounts and consist of money market funds, US Treasury, government agency and corporate debt obligations, commercial paper and asset-backed securities. Management expects that existing cash and cash equivalents as of December 31, 2015 will be sufficient to fund our planned operations through 2018.

Our cash, cash equivalents and short-term investments balances as of the dates indicated were as follows:

	December 31,		Increase
	2015	2014	(Decrease)
	(in thousands)		
Cash and cash equivalents	$ 23,746	$ 21,897	$ 1,849
Short-term investments	296,736	82,219	214,517
Total cash, cash equivalents and short-term investments	$ 320,482	$ 104,116	$ 216,366

Cash Flows

The following table details the primary sources and uses of cash for each of the periods set forth below:

	Year ended December 31,		
	2015	2014	2013
	(in thousands)		
Net cash provided by (used in):			
Operating activities	$ (37,156)	$ (16,628)	$ (5,966)
Investing activities	(220,127)	(83,363)	(3)
Financing activities	259,226	70,273	53,377
Net increase (decrease) in cash and cash equivalents	$ 1,943	$ (29,718)	$ 47,408

Operating activities

Net cash used in operating activities was $37.2 million in 2015 as compared to $16.6 million in 2014. The increase of $20.6 million was primarily due to a $29.2 million increase in net loss, partially offset by a $5.8 million increase in accounts payable and accrued liabilities and a $2.9 million increase in the amortization of investment premiums and discounts.

Net cash used in operating activities was $16.6 million in 2014 as compared to $6.0 million in 2013. The increase of $10.6 million was primarily due to a $19.2 million increase in net loss, partially offset by an $8.4 million increase in stock-based compensation and a $0.75 million non-cash charge for research and development expenses related to our exclusive option to license certain T-cell therapies from MSK.

Investing activities

Net cash used in investing activities in 2015 consisted primarily of $379.8 million invested in short-term available-for-sale securities, partially offset by maturities and sales of $160.1 million.

Net cash used in investing activities in 2014 consisted primarily of $95.5 million invested in short-term available-for-sale securities, partially offset by maturities of $12.2 million.

Financing activities

Net cash provided by financing activities in 2015 consisting primarily of $263.4 million in aggregate net proceeds from the sale of common stock in two separate follow-on offerings. These net proceeds were partially offset by $4.6 million used to pay taxes related to the net share settlement of restricted stock units.

Net cash provided by financing activities in 2014 consisted primarily of $56.5 million in net proceeds from the sale of common stock in our initial public offering and $13.5 million from the sale of shares of Series B convertible preferred stock.

Net cash provided by financing activities in 2013 consisted of $53.4 million raised from the sale of shares of convertible preferred stock.

Operating Capital Requirements

To date, we have not generated any revenue from product sales. We do not know when, or if, we will generate any revenue from product sales. We do not expect to generate significant revenue from product sales unless and until we obtain regulatory approval of and commercialize one of our current or future product candidates. We anticipate that we will continue to generate losses for the foreseeable future, and we expect the losses to increase as we continue the development of and seek regulatory approvals for our product candidates, and begin to commercialize any approved products. We are subject to all of the risks inherent in the development of new products, and we may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. We have incurred and expect to continue to incur additional costs associated with operating as a public company and we anticipate that we will need substantial additional funding in connection with our continuing operations.

We expect that our existing cash, cash equivalents and short-term investments will be sufficient to fund our planned operations through 2018. In order to complete the process of obtaining regulatory approval for our lead product candidates and to build the sales, marketing and distribution infrastructure that we believe will be necessary to commercialize our lead product candidates, if approved, we will require substantial additional funding.

We have based our projections of operating capital requirements on assumptions that may prove to be incorrect and we may use all of our available capital resources sooner than we expect. Because of the numerous risks and uncertainties associated with research, development and commercialization of pharmaceutical products, we are unable to estimate the exact amount of our operating capital requirements. Our future funding requirements will depend on many factors, including, but not limited to:

- the timing and costs of our planned clinical trials for our product candidates;
- the timing and costs of our planned preclinical studies of our product candidates;
- our success in establishing and scaling commercial manufacturing capabilities;
- the number and characteristics of product candidates that we pursue;
- the outcome, timing and costs of seeking regulatory approvals;
- subject to receipt of regulatory approval, revenues received from commercial sales of our product candidates;
- the terms and timing of any future collaborations, licensing, consulting or other arrangements that we may establish;
- the amount and timing of any payments we may be required to make in connection with the licensing, filing, prosecution, maintenance, defense and enforcement of any patents or patent applications or other intellectual property rights; and
- the extent to which we in-license or acquire other products and technologies.

Contractual Obligations and Commitments

We lease our current corporate headquarters in South San Francisco, California under a non-cancellable sublease agreement that expires in January 2017. In December 2015, we entered into a new lease agreement for approximately 13,670 square feet of office space in South San Francisco, California, which is intended to be our new corporate headquarters. The new lease is expected to expire in April 2021.

In January 2015, we entered into a non-cancellable lease agreement for office and laboratory space in Westlake Village, California. In September 2015, we amended the lease agreement to add additional office space and extend the term of the agreement to April 2019. Aggregate future minimum commitments for our operating leases as of December 31, 2015 are as follows:

	Payments Due by Period				
	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
	(in thousands)				
Operating lease obligations	$ 4,472	$ 967	$ 1,950	$ 1,555	$ —
Total contractual obligations	$ 4,472	$ 967	$ 1,950	$ 1,555	$ —

The above amounts exclude potential milestone and royalty payments related to our license and collaboration agreements, as the achievement of these milestones is currently not fixed and determinable.

We may also enter into contracts in the normal course of business with clinical research organizations for clinical trials, with contract manufacturing organizations for clinical supplies, and with other vendors for preclinical studies and supplies and other services and products for operating purposes. These contracts generally provide for termination on notice, with the exception of potential termination charges related to one of our contract manufacturing agreements in the event certain minimum purchase volumes are not met. Payments in the table above are based on current operating forecasts, which are subject to change, and do not include any termination fees.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined in the rules and regulations of the SEC.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Interest Rate and Market Risk

We are exposed to market risk related to changes in interest rates. As of December 31, 2015, we had cash and cash equivalents and short-term investments of $320.5 million. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates, particularly because our investments are in short-term securities. Our available-for-sale securities are subject to interest rate risk and will fall in value if market interest rates increase, which could result in a realized loss if we are forced to sell an investment before its scheduled maturity. We currently do not hedge our interest rate risk exposure. Due to the short-term duration of our investment portfolio and the low risk profile of our investments, an immediate change in interest rates of 10 basis points would not result in a significant change in the fair market value of our portfolio.

The primary objective of our investment activities is to preserve principal while at the same time maximizing the income we receive from our investments without significantly increasing risk. To achieve this objective, we maintain our portfolio of cash equivalents and short-term and long-term investments in a variety of securities, including money market funds, U.S. Treasury, government agency and corporate debt obligations, commercial paper and asset-backed securities. These securities are all classified as available-for-sale and consequently are recorded on the balance sheet at fair value, with unrealized gains or losses reported as a separate component of accumulated other comprehensive income (loss). Our holdings of the securities of any one issuer, except obligations of the U.S. Treasury or U.S. Treasury guaranteed securities, do not exceed 5% of our portfolio.

Foreign Currency Exchange Rate Risk

We are exposed to some degree of foreign exchange risk as a result of entering into transactions denominated in currencies other than U.S. dollars, particularly in Euros and British pounds. To manage this risk, we may purchase certain European currencies. We do not make these purchases for trading or speculative purposes, and there is no guarantee that the related gains and losses will substantially offset each other. In particular, we pay one of our CMOs located outside of the U.S. in British pounds. As of December 31, 2015, we held cash in British pounds valued at $1.5 million and had certain balances denominated in British pounds. All foreign transactions settle on the applicable spot exchange basis at the time such payments are made, and all monetary balances are translated to U.S. dollars using period-end exchange rate. Gains and losses on these transactions are recorded in interest and other income (expense), net in the statements of operations and comprehensive loss.

A hypothetical 10% change in foreign exchange rates during any of the preceding periods presented would not have had a significant impact on our financial statements.

Item 8. Financial Statements and Supplementary Data

Index to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Atara Biotherapeutics, Inc.
South San Francisco, California

We have audited the accompanying consolidated balance sheets of Atara Biotherapeutics, Inc. and its subsidiaries (collectively, the "Company") as of December 31, 2015 and 2014, and the related consolidated and combined statements of operations and comprehensive loss, convertible preferred stock and stockholders' equity (deficit), and cash flows for each of the three years in the period ended December 31, 2015. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated and combined financial statements present fairly, in all material respects, the financial position of Atara Biotherapeutics, Inc. and subsidiaries as of December 31, 2015 and 2014, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2015, in conformity with accounting principles generally accepted in the United States of America.

/s/ DELOITTE & TOUCHE LLP

San Jose, California
March 4, 2016

ATARA BIOTHERAPEUTICS, INC.
Consolidated Balance Sheets
(In thousands, except share amounts)

	As of December 31,	
	2015	2014
Assets		
Current assets:		
Cash and cash equivalents	$ 23,746	$ 21,897
Short-term investments	296,736	82,219
Restricted cash	194	—
Prepaid expenses and other current assets	3,921	1,910
Total current assets	324,597	106,026
Property and equipment, net	270	48
Other assets	108	48
Total assets	$ 324,975	$ 106,122
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 1,445	$ 440
Accrued compensation	2,624	1,225
Accrued research and development expenses	5,112	824
Other accrued liabilities	528	235
Total current liabilities	9,709	2,724
Long-term liabilities	166	216
Total liabilities	9,875	2,940
Commitments and contingencies (Note 7)		
Stockholders' equity:		
Common stock—$0.0001 par value, 500,000,000 shares authorized as of December 31, 2015 and 2014; 28,458,807 and 19,692,937 shares issued and outstanding as of December 31, 2015 and 2014, respectively	3	2
Additional paid-in capital	413,725	144,169
Accumulated other comprehensive loss	(518)	(100)
Accumulated deficit	(98,110)	(40,889)
Total stockholders' equity	315,100	103,182
Total liabilities and stockholders' equity	$ 324,975	$ 106,122

ATARA BIOTHERAPEUTICS, INC.
Consolidated and Combined Statements of Operations and Comprehensive Loss
(In thousands, except share and per share amounts)

	Year ended December 31,		
	2015	2014	2013
Operating expenses:			
Research and development	$ 41,618	$ 14,380	$ 4,306
Research and development costs paid to Amgen	—	1,066	553
General and administrative	16,830	12,710	3,756
Total operating expenses	58,448	28,156	8,615
Loss from operations	(58,448)	(28,156)	(8,615)
Interest and other income, net	1,218	125	12
Loss before provision for income taxes	(57,230)	(28,031)	(8,603)
Provision (benefit) for income taxes	(9)	(25)	170
Net loss	$ (57,221)	$ (28,006)	$ (8,773)
Other comprehensive loss:			
Unrealized loss on available-for-sale securities	(418)	(100)	—
Comprehensive loss	$ (57,639)	$ (28,106)	$ (8,773)
Net loss per common share:			
Basic and diluted net loss per common share	$ (2.24)	$ (5.62)	$ (9.08)
Weighted-average common shares outstanding used to calculate basic and diluted net loss per common share	25,583,334	4,985,540	965,825

ATARA BIOTHERAPEUTICS, INC.
Consolidated and Combined Statements of Convertible Preferred Stock and Stockholders' Equity (Deficit)
(In thousands)

	Series A Convertible Preferred Stock		Series A-1 Convertible Preferred Stock		Series B Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Notes Receivable From Stockholder	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount					
Balance as of December 31, 2012	11,538	4,946	3,532	1,765	—	—	7,462	1	382	—	—	(4,110)	(3,727)
Issuance of common stock for cash, net of offering costs of $1	—	—	—	—	—	—	615	—	—	—	—	—	—
Issuance of Series A preferred stock for cash, net of offering costs of $124	34,818	14,963	—	—	—	—	—	—	—	—	—	—	—
Issuance of Series A-1 preferred stock for license fee to Amgen	—	—	2,006	1,003	—	—	—	—	—	—	—	—	—
Issuance of Series B preferred stock for cash, net of offering costs of $86	—	—	—	—	43,529	38,414	—	—	—	—	—	—	—
Notes receivable from stockholder	—	—	—	—	—	—	—	—	—	(331)	—	—	(331)
Interest income accrued on notes receivable from stockholder	—	—	—	—	—	—	—	—	—	(4)	—	—	(4)
Issuance of common stock upon vesting of restricted stock awards	—	—	—	—	—	—	3,927	—	105	—	—	—	105
Stock-based compensation expense	—	—	—	—	—	—	—	—	1,713	—	—	—	1,713
Net loss	—	—	—	—	—	—	—	—	—	—	—	(8,773)	(8,773)
Balance as of December 31, 2013	46,356	19,909	5,538	2,768	43,529	38,414	12,004	1	2,200	(335)	—	(12,883)	(11,017)
Issuance of Series B preferred stock, net of offering costs of $19	—	—	—	—	15,263	13,481	—	—	—	—	—	—	—
Interest income accrued on notes receivable from stockholder	—	—	—	—	—	—	—	—	—	(2)	—	—	(2)
Repayment of notes receivable from stockholder	—	—	—	—	—	—	—	—	—	337	—	—	337
Issuance of common stock upon vesting of restricted stock awards	—	—	—	—	—	—	645	—	20	—	—	—	20
Recapitalization (Note 2)	(41,205)	—	(4,923)	—	(52,260)	—	(11,346)	(1)	1	—	—	—	—
Issuance of common stock upon vesting of stock awards—post Recapitalization	—	—	—	—	—	—	282	—	70	—	—	—	70
Issuance of common stock for research and development expenses related to technology licensing option	—	—	—	—	—	—	60	—	750	—	—	—	750
Conversion of preferred stock	(5,151)	(19,909)	(615)	(2,768)	(6,532)	(51,895)	12,298	1	74,572				74,573
Issuance of common stock, net of discounts and offering costs of $6,794	—	—	—	—	—	—	5,750	1	56,455	—	—	—	56,456
Stock-based compensation expense	—	—	—	—	—	—	—	—	10,101	—	—	—	10,101
Net loss	—	—	—	—	—	—	—	—	—	—	—	(28,006)	(28,006)
Unrealized loss on available-for-sale securities	—	—	—	—	—	—	—	—	—	—	(100)	-	(100)
Balance as of December 31, 2014	—	—	—	—	—	—	19,693	2	144,169	—	(100)	(40,889)	103,182
Issuance of common stock, net of discounts and offering costs of $5,166 in February 2015	—	—	—	—	—	—	4,147	1	69,486	—	—	—	69,487
Issuance of common stock, net of discounts and offering costs of $13,053 in July 2015	—	—	—	—	—	—	3,981	—	193,947	—	—	—	193,947
Issuance of common stock upon vesting of restricted stock awards	—	—	—	—	—	—	287	—	80	—	—	—	80
RSU settlements, net of													

shares withheld	—	—	—	—	—	—	327		(4,647)				(4,647)
Issuance of common stock pursuant to stock option exercises	—	—	—	—	—	—	24	—	439	—	—	—	439
Stock-based compensation expense	—	—	—	—	—	—	—	—	10,251	—	—	—	10,251
Net loss	—	—	—	—	—	—	—	—	—	—	—	(57,221)	(57,221)
Unrealized loss on available-for-sale securities	—	—	—	—	—	—	—	—	—	—	(418)	—	(418)
Balance as of December 31, 2015	—	$ —	—	$ —	—	$ —	28,459	$ 3	$ 413,725	$ —	$ (518)	$ (98,110)	$ 315,100

ATARA BIOTHERAPEUTICS, INC.
Consolidated and Combined Statements of Cash Flows
(In thousands)

	Year ended December 31,		
	2015	2014	2013
Operating activities			
Net loss	$ (57,221)	$ (28,006)	$ (8,773)
Adjustments to reconcile net loss to net cash used in operating activities:			
Stock-based compensation expense	10,251	10,101	1,713
Amortization of investment premiums and discounts	3,465	526	—
Non-cash research and development expenses	—	750	—
Depreciation expense	48	6	4
Write off of property and equipment	21	—	—
Loss on foreign exchange	94	—	—
Interest accrued on notes receivable from stockholder	—	(2)	(4)
Changes in operating assets and liabilities:			
Prepaid expenses and other current assets	(767)	(1,246)	(158)
Other assets	(61)	(37)	27
Accounts payable	1,005	(164)	485
Accrued compensation	1,399	894	280
Accrued research and development expenses	4,288	468	356
Other accrued liabilities	293	4	104
Long-term liabilities	29	78	—
Net cash used in operating activities	(37,156)	(16,628)	(5,966)
Investing activities			
Purchase of short-term investments	(379,776)	(95,525)	—
Sales and maturities of short-term investments	160,133	12,208	—
Transfer to restricted cash	(194)	—	—
Purchase of property and equipment	(290)	(46)	(3)
Net cash used in investing activities	(220,127)	(83,363)	(3)
Financing activities			
Proceeds from sale of common stock, net of offering costs	263,434	56,455	—
Taxes paid related to net share settlement of restricted stock units	(4,647)	—	—
Proceeds from exercise of stock options	439	—	—
Proceeds from sale of convertible preferred stock, net of offering costs	—	13,481	53,377
Repayment of notes receivable from stockholder	—	337	—
Net cash provided by financing activities	259,226	70,273	53,377
Effect of exchange rates on cash	(94)	—	—
Increase (decrease) in cash and cash equivalents	1,849	(29,718)	47,408
Cash and cash equivalents-beginning of period	21,897	51,615	4,207
Cash and cash equivalents-end of period	$ 23,746	$ 21,897	$ 51,615
Non-cash financing activities			
Issuance of common stock related to technology licensing option	$ —	$ 750	$ —
Issuance of Series A-1 convertible preferred stock to Amgen in exchange for license	$ —	$ —	$ 1,003
Change in obligation to issue Series A-1 convertible preferred stock to Amgen	$ —	$ —	$ (1,003)
Issuance of common stock upon vesting of stock awards	$ 80	$ 90	$ 105
Change in other long-term liabilities related to non-vested stock awards	$ (80)	$ (90)	$ 226
Restricted stock issued to related party in exchange for notes receivable	$ —	$ —	$ 331
Supplemental cash flow disclosure			
Cash paid for taxes	$ 3	$ 70	$ 22

ATARA BIOTHERAPEUTICS, INC.
Notes to Consolidated and Combined Financial Statements

1. Description of Business

Atara Biotherapeutics, Inc. ("Atara", "we", "our" or "the Company") was incorporated in August 2012 in Delaware. Atara is a clinical-stage biopharmaceutical company focused on developing meaningful therapies for patients with severe and life-threatening diseases that have been underserved by scientific innovation. We have two groups of product candidates: (a) allogeneic or third-party derived antigen-specific T-cells, and (b) molecularly targeted biologics.

Our T-cell programs were acquired through licensing arrangements with Memorial Sloan Kettering Cancer Center ("MSK"). Our molecularly targeted biologics programs were acquired through licensing arrangements with Amgen Inc. ("Amgen"). In December 2015, we announced that we were suspending our PINTA 745 program, which was originally licensed from Amgen. See Note 6 for further information.

In October 2014, we completed our initial public offering ("IPO") of 5,750,000 shares of common stock at an offering price to the public of $11.00 per share. We received net proceeds of $56.5 million, after deducting underwriting discounts and commissions and offering expenses. In connection with the IPO, our outstanding shares of convertible preferred stock were automatically converted into 12,298,515 shares of common stock, resulting in the reclassification of $74.6 million from mezzanine equity to additional paid-in capital.

In February 2015, we completed a follow-on offering of 4,147,358 shares of common stock at an offering price to the public of $18.00 per share. We received net proceeds of $69.5 million, after deducting underwriting discounts and commissions and offering expenses.

In July 2015, we completed a follow-on offering of 3,980,768 shares of common stock at an offering price to the public of $52.00 per share. We received net proceeds of $193.9 million, after deducting underwriting discounts and commissions and offering expenses.

2. Summary of Significant Accounting Policies

Basis of Presentation and Recapitalization

The accompanying consolidated and combined financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP") and the rules and regulations of the US Securities and Exchange Commission (the "SEC"). All share and per-share amounts presented in the consolidated and combined financial statements for the years ended December 31, 2015, 2014 and 2013 and in the notes hereto have been revised to reflect a 1.3-to-1 reverse stock split which became effective July 9, 2014. Certain items in the balance sheets and statements of cash flows have been reclassified from their presentation in prior years.

Atara was originally formed as a management company with the sole purpose of providing management, financial and administrative services for Nina Biotherapeutics, Inc. ("Nina"), Santa Maria Biotherapeutics, Inc. ("Santa Maria") and Pinta Biotherapeutics, Inc. ("Pinta"). Prior to March 31, 2014, the accompanying financial statements include the operations of Atara, Nina, Pinta and Santa Maria on a combined basis as the four individual companies were under common ownership and common management. All intercompany transactions have been eliminated.

On March 31, 2014, we implemented a recapitalization (the "Recapitalization") in which (a) all the outstanding shares of common stock of Atara were cancelled and forfeited by existing stockholders and (b) the stockholders of Nina, Pinta and Santa Maria exchanged their existing common and convertible preferred stock for newly-issued shares of Atara, with the same rights and privileges as the outstanding capital stock of Nina, Pinta and Santa Maria. The shares were exchanged on a collective nine-for-one basis. The Recapitalization lacked economic substance as the newly-issued shares have the same rights and privileges as the previously outstanding capital stock of Nina, Pinta and Santa Maria and there was no change in ownership percentages of the individual stockholders. As a result of the Recapitalization, Nina, Pinta and Santa Maria became wholly owned subsidiaries of Atara effective March 31, 2014. The Recapitalization is considered a tax-free exchange for US federal income tax purposes.

Because the four individual companies were under common ownership and the Recapitalization lacked economic substance, we accounted for the Recapitalization as a combination of businesses under common control. The assets and liabilities of Nina, Pinta and Santa Maria were recorded by Atara at their historical carrying amounts on March 31, 2014 and beginning March 31, 2014, the financial statements of Atara are presented on a consolidated basis.

Principles of Consolidation

The consolidated and combined financial statements include the accounts of Atara and its wholly owned subsidiaries, Nina, Pinta, Santa Maria and Atara Biotherapeutics Cayman Limited, a Cayman Islands corporation. All intercompany balances and transactions have been eliminated in consolidation.

Segment and Geographic Information

We operate and manage our business as one reporting and one operating segment, which is the business of developing and commercializing therapeutics. Our Chief Executive Officer, who is our chief operating decision maker, reviews financial information on an aggregate basis for purposes of allocating resources and evaluating financial performance. All of our assets are located in the United States.

Significant Risks and Uncertainties

We have incurred significant operating losses since inception and have relied on public and private equity financings to fund our operations. As of December 31, 2015, we had an accumulated deficit of $98.1 million. As we continue to incur losses, our transition to profitability will depend on the successful development, approval and commercialization of product candidates and on the achievement of sufficient revenues to support our cost structure. We may never achieve profitability, and unless and until we do, we will need to continue to raise additional capital. Management expects that our cash, cash equivalents and short-term investments as of December 31, 2015 will be sufficient to fund our planned operations through 2018.

Concentration of Credit Risk and Other Uncertainties

We place cash and cash equivalents in the custody of financial institutions that management believes are of high credit quality, which at times, may be in excess of the amount insured by the Federal Deposit Insurance Corporation. We also have short-term investments in money market funds, U.S. Treasury, government agency and corporate debt obligations, commercial paper and asset-backed securities, which can be subject to certain credit risk. However, we mitigate the risks by investing in high-grade instruments, limiting our exposure to any one issuer, and monitoring the ongoing creditworthiness of the financial institutions and issuers.

We are subject to certain risks and uncertainties and believe that changes in any of the following areas could have a material adverse effect on future financial position or results of operations: ability to obtain future financing; regulatory approval and market acceptance of, and reimbursement for, our product candidates; performance of third-party clinical research organizations and manufacturers upon which we rely; development of sales channels; protection of our intellectual property; litigation or claims against us based on intellectual property, patent, product, regulatory or other factors; and our ability to attract and retain employees necessary to support our growth.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Significant estimates relied upon in preparing these financial statements include the fair value of common stock and the fair value of preferred stock prior to our IPO and estimates related to clinical trial accruals and stock-based compensation expense. Actual results could differ materially from those estimates.

Foreign Currency

Transactions and foreign currency-denominated monetary assets and liabilities that are denominated in a foreign currency are translated into U.S. dollars at the current exchange rate on the transaction date and as of each balance sheet date, respectively, with gains or losses on foreign exchange changes recognized in interest and other income (expense), net in the statements of operations and comprehensive loss. As of December 31, 2015, we held British pounds valued at $1.5 million. There were no foreign currency transactions in prior periods.

Cash Equivalents and Short-Term Investments

Cash equivalents are defined as short-term, highly liquid investments with original maturities of 90 days or less at the date of purchase, and generally consist of money market funds, U.S. Treasury, government agency and corporate debt obligations, and commercial paper.

Investments with original maturities of greater than 90 days are classified as short-term investments on the balance sheet, and consist primarily of U.S. Treasury, government agency and corporate debt obligations, commercial paper and asset-backed securities.

As our entire investment portfolio is considered available for use in current operations, we classify all investments as available-for-sale and as current assets, even though the stated maturity may be more than one year from the current balance sheet date. Available-for-sale securities are carried at fair value, with unrealized gains and losses reported in accumulated other comprehensive loss, which is a separate component of stockholders' equity in the balance sheet.

The amortized cost of securities is adjusted for amortization of premiums and accretion of discounts to maturity, which are both recorded to interest and other income (expense), net in the statements of operations and comprehensive loss.

Changes in the fair value of available-for-sale securities impact the statements of operations only when such securities are sold or if an other-than-temporary impairment is recognized. Realized gains and losses on the sale of securities are determined by specific identification of each security's cost basis. We regularly review our investment portfolio to determine if any security is other-than-temporarily impaired, which would require us to record an impairment charge in the period any such determination is made. In making this judgment, we evaluate, among other things, the duration and extent to which the fair value of a security is less than its cost, the financial condition of the issuer and any changes thereto, our intent to sell, or whether it is more likely than not that we will be required to sell the security before recovery of its amortized cost basis. Our assessment on whether a security is other-than-temporarily impaired could change in the future due to new developments or changes in assumptions related to any particular security. Realized gains and losses and declines in value judged to be other-than-temporary on available-for-sale securities, if any, are recorded to interest and other income (expense), net in the statements of operations and comprehensive loss.

Fair Value Measurement

The carrying amounts of certain of our financial instruments including cash equivalents, prepaid expenses, accounts payable and accrued liabilities approximate fair value due to their short maturities. Short-term investments are comprised of available-for-sale securities, which are carried at fair value.

Fair Value of Financial Instruments

Our financial assets and liabilities are measured at fair value on a recurring basis using the following hierarchy to prioritize valuation inputs, in accordance with applicable GAAP:

Level 1: Quoted prices in active markets for identical assets or liabilities that we have the ability to access

Level 2: Observable market based inputs or unobservable inputs that are corroborated by market data such as quoted prices, interest rates and yield curves

Level 3: Inputs that are unobservable data points that are not corroborated by market data

We review the fair value hierarchy classification on a quarterly basis. Changes in the ability to observe valuation inputs may result in a reclassification of levels of certain securities within the fair value hierarchy. We recognize transfers into and out of levels within the fair value hierarchy in the period in which the actual event or change in circumstances that caused the transfer occurs. There have been no transfers between Level 1, Level 2, and Level 3 in any periods presented.

Financial assets and liabilities are considered Level 2 when their fair values are determined using inputs that are observable in the market or can be derived principally from or corroborated by observable market data such as pricing for similar securities, recently executed transactions, cash flow models with yield curves, and benchmark securities. In addition, Level 2 financial instruments are valued using comparisons to like-kind financial instruments and models that use readily observable market data as their basis. U.S. Treasury, government agency and corporate debt obligations, and commercial paper and asset-backed securities are valued primarily using market prices of comparable securities, bid/ask quotes, interest rate yields and prepayment spreads and are included in Level 2.

Financial assets and liabilities are considered Level 3 when their fair values are determined using pricing models, discounted cash flow methodologies, or similar techniques, and at least one significant model assumption or input is unobservable. We have no Level 3 financial assets or liabilities.

Property and Equipment, net

Property and equipment are stated at cost and depreciated using the straight-line method over the estimated useful lives of the assets, ranging from three to five years. Maintenance and repairs are charged to operations as incurred.

Long-lived Assets

We evaluate the carrying amount of our long-lived assets whenever events or changes in circumstances indicate that the assets may not be recoverable. An impairment loss would be recognized when estimated future cash flows expected to result from the use of the asset and its eventual disposition are less than the carrying amount of the asset. To date, there have been no such impairment losses.

Stock-Based Compensation Expense

We account for stock-based compensation expense, including the expense of restricted common stock awards ("RSAs") and grants of restricted stock units ("RSUs") and stock options that may be settled in shares of our common stock, based on the fair values of the equity instruments issued. The fair value is determined on the measurement date, which is generally the date of grant for employee awards and the date when the service performance is completed for non-employees. The fair value for our RSAs is their intrinsic value, which is the difference between the fair value of the underlying stock at the measurement date and the purchase price. The fair value of our RSUs is the fair value of the underlying stock at the measurement date. The fair value for our stock option awards is determined at the grant date using the Black-Scholes valuation model. For employees' awards with performance-based vesting criteria, we assess the probability of the achievement of the performance conditions at the end of each reporting period and recognize the share-based compensation costs when it becomes probable that the performance conditions will be met. For non-employees' awards with performance-based vesting criteria, we assess all possible outcomes at the end of each reporting period and recognize the lowest aggregate fair value in the range of possible outcomes. The lowest value in the range of possible outcomes may be zero. For awards that are subject to both service and performance conditions, no expense is recognized until it is probable that performance conditions will be met. Stock-based compensation expense for awards with time-based vesting criteria is recognized as expense on a straight-line basis over the requisite service period. Stock-based compensation expense for awards with performance and other vesting criteria is recognized as expense under an accelerated graded vesting model.

Key assumptions used in the Black-Scholes valuation model used for employee stock awards include:

Expected term – The expected term assumption represents the period that our stock-based awards are expected to be outstanding and is determined using the simplified method.

Expected volatility – Expected volatility is estimated using comparable public companies' volatility for similar terms.

Expected dividend – We have not historically declared or paid dividends to our stockholders and have no plans to pay dividends; therefore we assumed an expected dividend yield of 0%.

Risk-free interest rate – The risk-free interest rate is based on the yield on U.S. Treasury securities with the expected term of the associated award.

The fair value of non-employee stock options is estimated using the Black-Scholes valuation model with assumptions generally consistent with those used for employee stock options, with the exception of the expected term, which is the remaining contractual life at each measurement date.

Prior to our IPO in October 2014, due to the absence of an active market for our common stock, we estimated the fair value of our common stock in accordance with the framework of the American Institute of Certified Public Accountants Technical Practice Aid, Valuation of Privately-Held Company Equity Securities Issued as Compensation. Each valuation included estimates and assumptions that required management's judgment, including assumptions regarding the probability and estimated time to completion of our IPO. Subsequent to the completion of our IPO, the fair value of our common stock is based on observable market prices.

Research and Development Expense

Research and development expense consists of costs incurred in performing research and development activities, including compensation and benefits for research and development employees, expenses incurred under agreements with contract research organizations and investigative sites that conduct clinical trials and preclinical studies, the costs of acquiring and manufacturing clinical trial materials, other supplies and costs associated with product development efforts, preclinical activities and regulatory operations, and an allocation of facility and overhead expenses. Research and development costs are expensed as incurred.

Clinical Trial Accruals

Costs for preclinical study and clinical trial activities are recognized based on an evaluation of our vendors' progress towards completion of specific tasks, using data such as patient enrollment, clinical site activations or information provided to us by our vendors regarding their actual costs incurred. Payments for these activities are based on the terms of individual contracts and payment timing may differ significantly from the period in which the services are performed. We determine accrual estimates through reports from and discussions with applicable personnel and outside service providers as to the progress or state of completion of trials, or the services completed. Our estimates of accrued expenses as of each balance sheet date are based on the facts and circumstances known at the time. Costs that are paid in advance of performance are deferred as a prepaid expense and amortized over the service period as the services are provided.

Income Taxes

We use the assets and liabilities method to account for income taxes. We record deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the financial statement carrying amounts and the tax basis of assets and liabilities using enacted tax rates expected to be in effect when the differences are expected to reverse. Valuation allowances are provided when necessary to reduce net deferred tax assets to the amount that is more likely than not to be realized. Based on the available evidence, we are unable, at this time, to support the determination that it is more likely than not that our deferred tax assets will be utilized in the future. Accordingly, we recorded a full valuation allowance as of December 31, 2015 and 2014. We intend to maintain valuation allowances until sufficient evidence exists to support their reversal.

Tax benefits related to uncertain tax positions are recognized when it is more likely than not that a tax position will be sustained during an audit. Interest and penalties related to unrecognized tax benefits are included within the provision for income tax.

Comprehensive Loss

Comprehensive loss is defined as a change in equity of a business enterprise during a period resulting from transactions from non-owner sources. Our other comprehensive loss is comprised solely of unrealized gains (losses) on available-for-sale securities, and is presented net of taxes. We have not recorded any reclassifications from other comprehensive loss to net loss during any period presented.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, *Revenue from Contracts with Customers*, which will supersede most existing revenue recognition guidance under US GAAP. The core principle of the guidance is that an entity should recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. Entities can choose to apply the standard using either the full retrospective approach or a modified retrospective approach. The new revenue standard will be applied to contracts that are in progress at the date of adoption. The ASU also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments and assets recognized from costs incurred to obtain or fulfill a contract. In July 2015, the FASB approved deferral of the effective date of this ASU by one year to December 15, 2017. The ASU's effective date for the Company will be January 1, 2018. We will evaluate the application of this standard when we enter into any contracts with customers.

In August 2014, the FASB issued ASU No. 2014-15, *Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern*, which will require a reporting entity to evaluate, at each annual and interim reporting period, whether there are conditions or events that raise substantial doubt about the reporting entity's ability to continue as a going concern within one year after the date the financial statements are issued and provide related disclosures. The standard will be effective for annual periods ending after December 15, 2016, with early adoption permitted. We do not expect that the adoption of the new standard will have a significant impact on our consolidated financial statements.

In April 2015, the FASB issued ASU No. 2015-05, *Intangibles – Goodwill and Other – Internal-Use Software (Subtopic 350-40): Customer's Accounting for Fees Paid in a Cloud Computing Arrangement*, which provides guidance to customers about whether a cloud computing arrangement includes a software license. If such an arrangement includes a software license, then the customer should account for the software license element of the arrangement consistent with the acquisition of other software licenses. If the arrangement does not include a software license, the customer should account for it as a service contract. This ASU will be effective for annual periods beginning after December 15, 2015, and early application is permitted. Entities may apply the new guidance either prospectively to all arrangements entered into or materially modified after the effective date or retrospectively. We adopted this

standard prospectively on July 1, 2015. Adoption of this standard did not have a material impact on our consolidated financial statements.

In November 2015, the FASB issued ASU No. 2015-17, *Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes*, which simplifies the presentation of deferred income taxes. The ASU provides presentation requirements to classify deferred tax assets and liabilities as noncurrent in a classified statement of financial position. The standard is effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods. Earlier application is permitted for any interim and annual financial statements that have not yet been issued. The new guidance may be applied either prospectively to all deferred tax liabilities and assets or retrospectively to all periods presented. We adopted this standard on December 31, 2015. Adoption of this standard did not have a material impact on our consolidated financial statements.

On January 5, 2016, the FASB issued ASU No. 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities*, which amends the guidance in U.S. GAAP on the classification and measurement of financial instruments. Although the ASU retains many current requirements, it significantly revises an entity's accounting related to the classification and measurement of investments in equity securities and the presentation of certain fair value changes for financial liabilities measured at fair value. The ASU also amends certain disclosure requirements associated with the fair value of financial instruments. The new standard is effective for fiscal years and interim periods within those fiscal years beginning after December 15, 2017, with early adoption permitted for certain changes. The Company has not yet determined the potential effect the new standard will have of the Company's consolidated financial statements.

3. Net Loss per Common Share

Basic and diluted net loss per common share is presented, giving effect to the Recapitalization, including cancellation of existing Atara common stock and a nine-for-one share exchange. Basic net loss per common share is calculated by dividing the net loss by the weighted-average number of shares of common stock outstanding during the period, without consideration of common stock equivalents. Diluted net loss per common share is computed by dividing the net loss by the weighted-average number of shares of common stock and common share equivalents outstanding for the period. Common share equivalents are only included in the calculation of diluted net loss per common share when their effect is dilutive. Prior to the date of our IPO, we considered all series of our convertible preferred stock to be participating securities as they were entitled to participate in undistributed earnings with shares of common stock. Due to net losses, there is no impact on the net loss per common share calculation in applying the two-class method since the participating securities had no legal requirement to share in any losses.

Potential dilutive securities, which include convertible preferred stock prior to our IPO, unvested RSAs, unvested RSUs and vested and unvested options have been excluded from the computation of diluted net loss per share as the effect is antidilutive. Therefore, the denominator used to calculate both basic and diluted net loss per common share is the same in all periods presented.

The following table represents the potential common shares issuable pursuant to outstanding securities as of the related period end dates that were excluded from the computation of diluted net loss per common share as their inclusion would have an antidilutive effect:

	As of December 31,		
	2015	2014	2013
Unvested restricted common stock awards	233,413	666,091	790,216
Unvested restricted stock units	427,605	721,293	—
Vested and unvested options	3,137,529	313,565	—

Additionally, convertible preferred stock that was outstanding prior to our IPO in October 2014 has been excluded from the computation of diluted net loss per common share, as these securities would have been antidilutive during 2014 and 2013.

4. Financial Instruments

The following tables summarize the estimated fair value and related valuation input hierarchy of our financial assets measured on a recurring basis, which were comprised solely of available-for-sale securities as of each period end:

As of December 31, 2015:	Input Level	Total Amortized Cost	Total Unrealized Gain	Total Unrealized Loss	Total Estimated Fair Value
		(in thousands)			
Money market funds	Level 1	$ 16,364	$ —	$ —	$ 16,364
U.S. Treasury obligations	Level 2	599	—	(1)	598
Government agency obligations	Level 2	36,480	1	(88)	36,393
Corporate debt obligations	Level 2	203,767	8	(339)	203,436
Commercial paper	Level 2	999	—	—	999
Asset-backed securities	Level 2	61,304	2	(102)	61,204
Total available-for-sale securities		319,513	11	(530)	318,994
Less amounts classified as cash equivalents		(22,259)	—	1	(22,258)
Amounts classified as short-term investments		$ 297,254	$ 11	$ (529)	$ 296,736

As of December 31, 2014:	Input Level	Total Amortized Cost	Total Unrealized Gain	Total Unrealized Loss	Total Estimated Fair Value
		(in thousands)			
Money market funds	Level 1	$ 18,141	$ —	$ —	$ 18,141
U.S. Treasury obligations	Level 2	466	—	(1)	465
Government agency obligations	Level 2	12,519	—	(5)	12,514
Corporate debt obligations	Level 2	60,052	1	(89)	59,964
Commercial paper	Level 2	1,200	—	—	1,200
Asset-backed securities	Level 2	11,838	2	(8)	11,832
Total available-for-sale securities		104,216	3	(103)	104,116
Less amounts classified as cash equivalents		(21,897)	—	—	(21,897)
Amounts classified as short-term investments		$ 82,319	$ 3	$ (103)	$ 82,219

The amortized cost and fair value of our available-for-sale securities by contractual maturity were as follows:

	As of December 31, 2015		As of December 31, 2014	
	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value
	(in thousands)		(in thousands)	
Maturing within one year	$ 211,311	$ 211,059	$ 78,649	$ 78,611
Maturing in one to five years	108,202	107,935	25,567	25,505
Total available-for-sale securities	$ 319,513	$ 318,994	$ 104,216	$ 104,116

As of December 31, 2015, certain available-for-sale securities had been in a continuous unrealized loss position, each for less than twelve months. As of this date, no significant facts or circumstances were present to indicate a deterioration in the creditworthiness of the respective issuers, and the Company had no requirement or intention to sell these securities before maturity or recovery of their amortized cost basis. During the years ended December 31, 2015, 2014, and 2013, we did not recognize any other-than-temporary impairment loss.

5. Property and Equipment

Property and equipment consists of lab equipment, furniture and fixtures, computer equipment and software, which is depreciated over the estimated useful lives of the assets, ranging from three to five years. Depreciation expense was not material for all periods presented.

6. License and Collaboration Agreements

MSK Agreements – In September 2014, we entered into an exclusive option agreement with MSK under which we had the right to acquire the exclusive worldwide license rights to three clinical stage T-cell therapies from MSK. In exchange for the option, we paid $1.25 million in cash and issued 59,761 shares of our common stock to MSK. At the time of issuance, we estimated the fair value of the stock issued to MSK to be $0.75 million. The total of $2.0 million was recorded as research and development expense in our statements of operations and comprehensive loss.

In June 2015, we exercised our option and entered into an exclusive license agreement with MSK. In connection with the execution of the license agreement, we paid $4.5 million in cash to MSK, which was recorded as research and development expense in our statement of operations and comprehensive loss. We are required to make additional payments of up to $33.0 million to MSK based on achievement of specified regulatory and sales-related milestones, as well as mid-single-digit percentage tiered royalty payments based on future sales of products resulting from the development of the licensed product candidates, if any. In addition, under certain circumstances, we are required to make certain minimum annual royalty payments to MSK, which are creditable against earned royalties owed for the same annual period. We are also required to pay a low double-digit percentage of any consideration we receive for sublicensing the licensed rights. The license agreement expires on a product-by-product and country-by-country basis on the later of: (i) expiration of the last licensed patent rights related to each licensed product, (ii) expiration of any market exclusivity period granted by law with respect to each licensed product, and (iii) a specified number of years after the first commercial sale of the licensed product in each country. Upon expiration of the license agreement, Atara will retain non-exclusive rights to the licensed products.

Amgen License Agreements - In September 2012, we entered into three license agreements with Amgen, which at the time was, but is no longer considered, a related party, for the development, manufacturing, use and distribution of products using certain proprietary compounds. Under the terms of these agreements, we paid $0.25 million in cash and issued 5,538,462 shares of Series A-1 convertible preferred stock (615,384 shares after giving effect to the Recapitalization) to Amgen, for which we estimated the fair value to be $2.8 million. Both amounts were recorded as research and development expense paid to Amgen in our combined statements of operations and comprehensive loss in 2012. Of the total Series A-1 convertible preferred stock, 2,006,688 and 3,531,774 shares were issued in 2013 and 2012, respectively.

During the year ended December 31, 2014, we purchased clinical services totaling $0.1 million and made a $1.0 million milestone payment to Amgen. During the year ended December 31, 2013, we purchased clinical supplies totaling $0.6 million from Amgen. There were no payments to Amgen in 2015. The above payments to Amgen have been recorded as research and development costs paid to Amgen in our statements of operations and comprehensive loss.

In accordance with terms of the agreements with Amgen, we use commercially reasonable efforts to prepare, file, prosecute, defend and maintain the patents covered by the license agreements. During the years ended December 31, 2015, 2014 and 2013, we incurred expenses of $1.5 million, $1.2 million and $0.8 million, respectively, related to these activities.

We are required to make payments to Amgen of up to $86.0 million upon the achievement of certain development and regulatory approval milestones, of which $1.0 million has been paid to date. Of these milestone payments, $14.0 million relate to milestones for clinical trials. The remaining $72.0 million relate to milestones for regulatory approvals in various territories and are anticipated to be made no earlier than 2018. Thereafter, we are required to make tiered payments based on achievement of commercial milestones based upon net sales levels. The maximum payments would be $206.0 million based on sales of over $1.0 billion for each of three products in a calendar year. In December 2015, we announced that we would be suspending further development of PINTA 745. Consequently, we expect payments upon the achievement of development and regulatory approval milestones to be no more than $59.0 million in total and sales-based payments to be no more than $104.0 million in total.

We are also required to pay mid-single-digit percentage tiered royalties on future net sales of products which are developed and approved as defined by the agreements, if any. Our royalty obligations as to a particular licensed product will be payable, on a country-by-country and product-by-product basis, until the later of (a) the date of expiration of the last to expire valid claim within the licensed patents that covers the manufacture, use or sale, offer to sell, or import of such licensed product by us or a sublicense in such country, (b) loss of regulatory exclusivity, or (c) 10 years after the first commercial sale of the applicable licensed product in the applicable country. These agreements expire at the end of all royalty obligations to Amgen and, upon expiration, the licenses will be fully paid, royalty-free, irrevocable and non-exclusive.

As of December 31, 2015, Amgen owned 5.1% of our outstanding common stock. Amgen does not have any rights to participate in our product candidates' development and is not represented on our board of directors.

QIMR Berghofer Agreements – In October 2015, we entered into an exclusive license agreement and a research and development collaboration agreement with QIMR Berghofer Medical Research Institute ("QIMR Berghofer"). Under the terms of the license agreement, we obtained an exclusive, worldwide license to develop and commercialize allogeneic cytotoxic T-lymphocytes ("CTL") therapy programs utilizing technology and know-how developed by QIMR Berghofer. In consideration for the exclusive license, we paid $3.0 million in cash to QIMR Berghofer, which was recorded as research and development expense in our statement of operations and comprehensive loss. Under the research and development collaboration agreement, we are required to reimburse the cost of agreed upon development activities. These payments are expensed as incurred and resulted in research and development expense of $0.2 million for the year ended December 31, 2015. The agreement also provides for various milestone and royalty payments to QIMR Berghofer based on achievement of certain developmental milestones and future product sales, if any.

Milestones and royalties under each of the above agreements are contingent upon future events and will be recorded as expense when it is probable that the milestones will be achieved or royalties are due. As of December 31, 2015 and 2014, there were no outstanding obligations for milestones and royalties to MSK, Amgen and QIMR Berghofer.

7. Commitments and Contingencies

License and Collaboration Agreements

Potential payments related to our license and collaboration agreements, including milestone and royalty payments, are detailed in Note 6. As the achievement of these milestones and royalties are currently not fixed and determinable, such commitments have not been included in our balance sheets.

Other Research and Development Agreements

We may also enter into contracts in the normal course of business with clinical research organizations for clinical trials, with contract manufacturing organizations for clinical supplies, and with other vendors for pre-clinical studies, supplies and other services and products for operating purposes. These contracts generally provide for termination on notice, with the exception of potential termination charges related to one of our contract manufacturing agreements in the event certain minimum purchase volumes are not met.

Operating Leases

We lease our corporate headquarters in South San Francisco, California under a non-cancellable sublease agreement that expires in January 2017. In December 2015, we entered into a new lease agreement for office space in South San Francisco, California, which is intended to be our new corporate headquarters. The new lease is expected to expire in April 2021. In connection with the new lease, we were required to issue a letter of credit in the amount of $0.2 million to the landlord, which expires in December 2016 and is classified as restricted cash in our balance sheet. In January 2015, we entered into a non-cancellable lease agreement for office and laboratory facilities in Westlake Village, California that was scheduled to expire in April 2018. In September 2015, we amended this lease to add additional office space and extend the term of the agreement to April 2019. We also lease office space in New York, under a lease agreement that expires in April 2016. Future minimum commitments for these operating leases are as follows:

	Operating Leases
	(in thousands)
2016	$ 967
2017	969
2018	981
2019	734
2020	614
Thereafter	207
Total operating lease commitments	$ 4,472

Rent expense for the years ended December 31, 2015, 2014 and 2013 were $0.4 million, $0.1 million and $0.1 million, respectively.

Indemnification Agreements

In the normal course of business, we enter into contracts and agreements that contain a variety of representations and warranties and provide for indemnification for certain liabilities. The exposure under these agreements is unknown because it involves claims

that may be made against us in the future but have not yet been made. To date, we have not paid any claims or been required to defend any action related to our indemnification obligations. However, we may record charges in the future as a result of these indemnification obligations. We also have indemnification obligations to our directors and executive officers for specified events or occurrences, subject to some limits, while they are serving at our request in such capacities. There have been no claims to date and we believe the fair value of these indemnification agreements is minimal. Accordingly, we have not recorded any liabilities for these agreements as of December 31, 2015 and 2014.

Contingencies

From time to time, we may be involved in legal proceedings, as well as demands, claims and threatened litigation, which arise in the normal course of our business or otherwise. The ultimate outcome of any litigation is uncertain and unfavorable outcomes could have a negative impact on our results of operations and financial condition. Regardless of outcome, litigation can have an adverse impact on us because of the defense costs, diversion of management resources and other factors. We are not currently involved in any material legal proceedings.

8. Stockholders' Equity

Our authorized capital stock consists of 520,000,000 shares, all with a par value of $0.0001 per share, of which 500,000,000 shares are designated as common stock and 20,000,000 shares are designated as preferred stock. There were no shares of preferred stock outstanding as of December 31, 2015 and 2014.

The following shares of common stock were reserved for future issuance as of December 31, 2015:

	Total Shares Reserved
2014 Equity Incentive Plan	3,916,362
2014 Employee Stock Purchase Plan	432,898
Total reserved shares of common stock	4,349,260

Restricted Stock Awards

In August 2012, in connection with our formation, our CEO purchased 9,595,384 shares of restricted common stock at a nominal per share purchase price. The shares were issued subject to certain vesting conditions, restrictions on transfer and a Company right of repurchase of any unvested share at their original purchase price. These shares are placed in escrow until vested, and have rights to vote and participate in dividends and distributions. The combined grant date intrinsic value for this award was $1.7 million, and 7,996,153 of the shares had service and fundraising vesting conditions. Under the service vesting condition, shares vest monthly over 48 months, commencing from the first closing of Series A convertible preferred stock financing on October 22, 2012. The remaining 1,599,231 of these shares were subject to performance milestones and fundraising vesting conditions. The fundraising vesting conditions for all shares were satisfied as of December 31, 2013. All shares subject to service vesting conditions are subject to accelerated vesting in the event of certain change of control transactions.

In March 2013, an Atara employee purchased 2,423,074 shares of restricted common stock for $0.3 million. The shares were issued under our 2012 Equity Incentive Plan and are subject to certain vesting conditions, restrictions on transfer and a Company right of repurchase of any unvested shares at their original purchase price. These shares are placed in escrow until vested, and have rights to vote and participate in dividends and distributions. Under these agreements, the shares vest as follows: 2,319,228 shares vest over four years, with one-quarter vesting after one year of service and the remainder vesting in equal installments over the subsequent thirty-six months, and 103,846 shares vest upon achievement of certain performance milestones. Vesting of all shares is subject to acceleration of vesting in the event of certain change of control transactions.

The amounts paid for both RSAs were initially recorded as other long-term liabilities. As the shares vest, we reclassify liabilities to equity and report shares as outstanding in the financial statements. On March 31, 2014, these shares were exchanged for 1,335,384 shares of Atara common stock. As of December 31, 2015, 1,101,972 of these shares had vested and are reported as shares outstanding in the financial statements. The remaining 233,413 shares are expected to fully vest in 2016. As both the Chief Executive Officer and the Atara employee were consultants of Nina, Pinta and Santa Maria through the Recapitalization date, we accounted for these RSAs as non-employee stock-based awards. Following the Recapitalization, these RSAs were accounted for as employee awards based upon the fair market value of common stock on March 31, 2014.

The weighted average grant date fair value of RSAs granted during the year ended December 31, 2013 was $0.40. There were no grants of RSAs in the years ended December 31, 2015 and 2014. Stock-based compensation expense related to the RSAs is recorded using accelerated graded vesting model and was $0.8 million, $5.2 million and $1.7 million for the years ended December 31, 2015, 2014 and 2013, respectively. The unrecognized stock-based compensation expense related to unvested RSAs was $0.2 million as of December 31, 2015 and this expense is expected to be recognized in 2016. The aggregate intrinsic value of unvested RSAs was $6.1 million as of December 31, 2015.

Equity Incentive Plan

In March 2014, we adopted the 2014 Equity Incentive Plan (the "2014 EIP") as part of our Recapitalization. In connection with the Recapitalization, Atara assumed the plans of Nina, Pinta and Santa Maria and all outstanding RSAs and RSUs granted under such plans. At the date of Recapitalization, RSAs and RSUs issued by Nina, Pinta and Santa Maria to Atara employees became employee awards and the awards' grant dates were established as the Recapitalization date. In May 2014, our board of directors amended and restated our 2014 EIP and the amended plan became effective on October 15, 2014 upon the pricing of our IPO.

The 2014 EIP provides for annual increases in the number of shares available for issuance thereunder on the first business day of each fiscal year, beginning with 2015 and ending in 2024, equal to five percent of the number of shares of the Company's common stock outstanding as of such date or a lesser number of shares as determined by our board of directors.

As of December 31, 2015, a total of 3,916,362 shares of common stock were reserved for issuance under the 2014 Plan, of which 326,393 shares were available for future grant and 3,589,969 were subject to outstanding options and RSUs.

Under the terms of the 2014 EIP, we may grant options, RSAs and RSUs to employees, directors, consultants and other service providers. RSUs typically require settlement by the earlier of seven years from the date of grant or the service termination (or, for RSUs granted prior to February 2014, two years following the service termination date). Stock options are granted at prices no less than 100% of the estimated fair value of the shares on the date of grant as determined by the board of directors, provided, however, that the exercise price of an option granted to a 10% shareholder cannot be less than 110% of the estimated fair value of the shares on the date of grant. Options granted to employees and non-employees generally vest over four years and expire in seven years.

Restricted Stock Units and Awards

The RSUs granted prior to our October 2014 IPO had a time-based service condition and a liquidity-based performance condition, and vest when both conditions are met. Prior to our IPO, we determined that the liquidity-based performance condition was not probable of occurring and recorded no stock-based compensation expense related to these RSUs. Upon the closing of our IPO, we recorded $3.8 million of stock-based compensation expense in our statement of operations and comprehensive loss. The weighted average grant date fair value of RSUs granted during the year ended December 31, 2015, 2014 and 2013 was $25.15, $6.53 and $1.99, respectively. As of December 31, 2015, there was $1.9 million of unrecognized stock-based compensation expense related to RSUs that is expected to be recognized over a weighted average period of 1.1 years. The aggregate intrinsic value of the RSUs outstanding as of December 31, 2015 was $11.9 million.

The following is a summary of RSAs and RSUs activity under our 2014 EIP:

	RSAs		RSUs	
	Shares	Weighted Average Grant Date Fair Value	Shares	Weighted Average Grant Date Fair Value
Unvested as of December 31, 2014	112,740	$ 0.40	619,303	$ 4.64
Granted	—	—	87,600	$ 25.15
Forfeited	—	—	(2,645)	$ 8.59
Vested	(64,423)	$ 0.40	(276,653)	$ 6.12
Unvested as of December 31, 2015	48,317	$ 0.40	427,605	$ 7.86
Vested and unreleased			24,835	
Outstanding as of December 31, 2015	—	—	452,440	

Under our RSU net settlement procedures, we withhold shares at settlement to cover the minimum payroll withholding tax obligations. During 2015, we settled 451,306 RSUs, of which 327,383 RSUs were net settled by withholding 123,923 shares. The value of the RSUs withheld was $4.6 million, based on the closing price of our common stock on the settlement date. This amount was remitted to the appropriate taxing authorities and has been reflected as a financing activity in our statements of cash flows.

Stock Options

The following is a summary of option activity under our 2014 EIP:

	Number of shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (in thousands)
Outstanding as of December 31, 2014	623,936	$ 13.69		
Granted	2,610,174	$ 28.95		
Exercised	(23,822)	$ 18.44		
Forfeited or expired	(72,759)	$ 37.11		
Outstanding as of December 31, 2015	3,137,529	$ 25.81	6.42	$ 12,978
Vested and expected to vest as of December 31, 2015	3,137,529	$ 25.81	6.42	$ 12,978
Exercisable as of December 31, 2015	276,909	$ 17.75	5.75	$ 2,470

Aggregate intrinsic value represents the difference between the closing stock price of our common stock on December 31, 2015 and the exercise price of outstanding, in-the-money options. As of December 31, 2015, there was $40.4 million of unrecognized stock-based compensation expense related to stock options that is expected to be recognized over a weighted average period of 3.4 years.

Options for 23,822 shares of our common stock were exercised during the year ended December 31, 2015, with an intrinsic value of $0.6 million. No options were exercised during 2014 and 2013. As we believe it is more likely than not that no stock option related tax benefits will be realized, we do not record any net tax benefits related to exercised options.

The fair value of each option issued was estimated at the date of grant using the Black-Scholes valuation model. The following table summarizes the weighted-average assumptions used as inputs to the Black-Scholes model, and resulting weighted-average grant date fair values of employee and consultant stock options granted during the periods indicated:

	Year Ended December 31, 2015		Year Ended December 31, 2014	
	Employees	Consultants	Employees	Consultants
Assumptions:				
Expected term (years)	4.5	7.0	4.5	7.0
Expected volatility	72.4%	71.5%	65.7%	65.8%
Risk-free interest rate	1.6%	2.0%	1.6%	2.2%
Expected dividend yield	0.0%	0.0%	0.0%	0.0%
Weighted-average estimated grant date fair value per share	$ 16.63	$ 27.82	$ 7.29	$ 8.61

The estimated fair value of stock options that vested in the years ended December 31, 2015, 2014 and 2013 was $2.9 million, $0.1 million and zero, respectively.

Employee Stock Purchase Plan

In May 2014, we adopted the 2014 Employee Stock Purchase Plan (“2014 ESPP”), which became effective on October 15, 2014 upon the pricing of our IPO. The 2014 ESPP permits eligible employees to purchase common stock at a discount through payroll deductions during defined offering periods. No offerings commenced and there were no purchases of shares under the 2014 ESPP in the year ended December 31, 2015.

The 2014 ESPP provides for annual increases in the number of shares available for issuance thereunder on the first business day of each fiscal year, beginning with 2015 and ending in 2024, equal to the lower of (i) one percent of the number of shares of our common stock outstanding as of such date, (ii) 230,769 shares of our common stock, or (iii) a lesser number of shares as determined by our board of directors. As of December 31, 2015, there were 432,898 shares authorized for issuance under the 2014 ESPP.

Stock-based Compensation Expense

Total stock-based compensation expense related to all employee and non-employee awards was as follows:

	Year ended December 31,		
	2015	2014	2013
	(in thousands)		
Research and development	$ 4,822	$ 3,258	$ 251
General and administrative	5,429	6,843	1,462
Total stock-based compensation	$ 10,251	$ 10,101	$ 1,713

9. Income Taxes

For the years ended December 31, 2015, 2014 and 2013, all of the loss before provision for income taxes was domestic, and we recorded the following income tax provision:

	Year Ended December 31,		
	2015	2014	2013
Current provision (benefit) for:	(in thousands)		
Federal income taxes	$ (1)	$ (36)	$ 153
State income taxes	(8)	11	17
Total current provision (benefit)	$ (9)	$ (25)	$ 170

A reconciliation of statutory tax rates to effective tax rates for the years ended December 31, 2015, 2014 and 2013 is as follows:

	Year Ended December 31,		
	2015	2014	2013
Federal income taxes at statutory rate	34.0%	34.0%	34.0%
Non-deductible stock compensation	(0.6%)	(7.3%)	(6.8%)
State income tax, net of federal benefit	—	—	(0.3%)
Other	—	0.1%	(0.1%)
Valuation allowance	(33.4%)	(26.7%)	(28.8%)
Effective tax rate	0.0%	0.1%	(2.0%)

Deferred tax assets and liabilities reflect the net tax effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of our deferred tax assets and liabilities were as follows as of the dates indicated:

	As of December 31,	
	2015	2014
Deferred tax assets:	(in thousands)	
Net operating losses	$ 24,219	$ 8,220
License fees	5,122	2,279
Stock-based compensation	4,999	1,964
Legal fees	1,436	757
Other	1,249	494
Total deferred tax assets	37,025	13,714
Valuation allowance	(37,025)	(13,714)
Net deferred tax assets	$ —	$ —

We recognize deferred income taxes for temporary differences between the basis of assets and liabilities for financial statement and income tax purposes, as well as for tax attribute carryforwards. We regularly evaluate the positive and negative evidence in determining the realizability of our deferred tax assets. Based upon the weight of available evidence, which includes our historical operating performance and reported cumulative net losses since inception, we maintained a full valuation allowance on the net deferred tax assets as of December 31, 2015 and 2014. We intend to maintain a full valuation allowance on our deferred tax assets until sufficient positive evidence exists to support reversal of the valuation allowance. The valuation allowance increased by $23.3 million, $9.2 million and $2.9 million for the years ended December 31, 2015, 2014 and 2013, respectively.

As of December 31, 2015, we had federal and state net operating loss carryforwards for tax return purposes of $68.8 million and $68.7 million, respectively. The federal and state net operating loss carryforwards begin to expire in 2032 in various amounts if not utilized. Included in each of these amounts are unrealized federal and state net operating loss deductions resulting from stock option exercises of $8.9 million. The benefit of these unrealized stock option-related deductions has not been included in the deferred tax assets table above and will be recognized as a credit to additional paid-in capital when realized.

Under Section 382 of the Internal Revenue Code of 1986, as amended (the "Code"), our ability to utilize net operating loss carryforwards or other tax attributes in any taxable year may be limited if we have experienced an "ownership change." Generally, a Section 382 "ownership change" occurs if one or more stockholders or groups of stockholders who owns at least 5% of a corporation's stock increases its ownership by more than 50% over its lowest ownership percentage within a specified testing period. Similar rules may apply under state tax laws.

We have completed a Section 382 study of transactions in our stock through December 31, 2015. The study concluded that we have experienced at least one ownership change since inception and that our utilization of net operating loss carryforwards will be subject to annual limitations. Further, other provisions of the Code may limit our ability to utilize federal net operating losses incurred before our Recapitalization to offset income or gain realized after the Recapitalization unless such income or gain is realized by the same entity that originally incurred such losses. However, it is not expected that these limitations will result in the expiration of tax attribute carryforwards prior to utilization.

A reconciliation of the beginning and ending amount of gross unrecognized tax benefits is as follows:

	(In thousands)
Balance as of December 31, 2013	$ -
Gross increases for tax positions related to current year	1,014
Gross increases for tax positions related to prior years	629
Balance as of December 31, 2014	1,643
Gross increases for tax positions related to current year	2,671
Balance as of December 31, 2015	$ 4,314

Of the $4.3 million total unrecognized tax benefits, $0.1 million, if recognized, would affect the effective tax rate due to the valuation allowance that currently offsets deferred tax assets. We recognize interest and penalties related to uncertain tax positions as part of the income tax provision and, to date, such interest and penalties have not been material. We are not aware of any items that will significantly increase or decrease our unrecognized tax benefits in the next 12 months. We file income tax returns in the US federal jurisdiction and California. All of our tax years remain open to examination by the US federal and California tax authorities.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Under the supervision of our Chief Executive Officer and Chief Financial Officer, we evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) of the Exchange Act as of December 31, 2015. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective as of December 31, 2015 to ensure that information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely discussion regarding required disclosures. In designing and evaluating our disclosure controls and procedures, management recognizes that any disclosure controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). Our management conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2015 based on the criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Based on the results of its evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2015.

Inherent Limitations on Controls and Procedures

Our management, including the Chief Executive and Financial Officer and Principal Accounting Officer, does not expect that our disclosure controls and procedures and our internal controls will prevent all error and all fraud. A control system, no matter how well designed and operated, can only provide reasonable assurances that the objectives of the control system are met. The design of a control system reflects resource constraints; the benefits of controls must be considered relative to their costs. Because there are inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been or will be detected. As these inherent limitations are known features of the financial reporting process, it is possible to design into the process safeguards to reduce, though not eliminate, these risks. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns occur because of simple error or mistake. Controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the control. The design of any system of controls is based in part upon certain assumptions about the likelihood of future events. While our disclosure controls and procedures are designed to provide reasonable assurance of achieving their objectives, there can be no assurance that any design will succeed in achieving its stated goals under all future conditions. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with the policies or procedures. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

We intend to review and evaluate the design and effectiveness of our disclosure controls and procedures on an ongoing basis and to improve our controls and procedures over time and to correct any deficiencies that we may discover in the future. While our Chief Executive and Financial Officer and Principal Accounting Officer have concluded that, as of December 31, 2015, the design of our disclosure controls and procedures, as defined in Rule 13a-15(e) under the Exchange Act, was effective, future events affecting our business may cause us to significantly modify our disclosure controls and procedures.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting identified in connection with the evaluation required by Rules 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the three months ended December 31, 2015 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Report of the Independent Registered Public Accounting Firm

This Annual Report on Form 10-K does not include an attestation report of our registered public accounting firm due to an exemption established by the JOBS Act for "emerging growth companies."

Item 9B. Other Information

None.

PART III

Certain information required by Part III is omitted from this Annual Report on Form 10-K since we intend to file our definitive proxy statement for our 2016 annual meeting of stockholders, or the Definitive Proxy Statement, pursuant to Regulation 14A of the Securities Exchange Act of 1934, as amended, not later than 120 days after December 31, 2015, and certain information to be included in the Definitive Proxy Statement is incorporated herein by reference.

Item 10. Directors, Executive Officers and Corporate Governance

Information required by this Item is hereby incorporated by reference to our Definitive Proxy Statement.

We have adopted a Code of Conduct that applies to our officers, directors and employees which is available on our internet website at www.atarabio.com. The Code of Conduct contains general guidelines for conducting the business of our company consistent with the highest standards of business ethics, and is intended to qualify as a "code of ethics" within the meaning of Section 406 of the Sarbanes-Oxley Act of 2002 and Item 406 of Regulation S-K. In addition, we intend to promptly disclose (1) the nature of any amendment to our Code of Conduct that applies to our principal executive officer, principal financial officer, principal accounting officer or controller or persons performing similar functions and (2) the nature of any waiver, including an implicit waiver, from a provision of our code of ethics that is granted to one of these specified officers, the name of such person who is granted the waiver and the date of the waiver on our website in the future.

Item 11. Executive Compensation

Information required by this Item is hereby incorporated by reference to our Definitive Proxy Statement.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information required by this Item is hereby incorporated by reference to our Definitive Proxy Statement.

Item 13. Certain Relationships and Related Transactions, and Director Independence

Information required by this Item is hereby incorporated by reference to our Definitive Proxy Statement.

Item 14. Principal Accounting Fees and Services

Information required by this Item is hereby incorporated by reference to our Definitive Proxy Statement.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(a)(1) Financial Statements.

The response to this portion of Item 15 is set forth under Item 8 above.

(a)(2) Financial Statement Schedules.

All schedules have been omitted because they are not required or because the required information is given in the financial statements or notes thereto set forth under Item 8 above.

(a)(3) Exhibits.

A list of exhibits filed with this report or incorporated herein by reference can be found in the Exhibit Index immediately following the signature page of this Report.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of South San Francisco, State of California, on the 4th day of March, 2016.

Atara Biotherapeutics, Inc.

By: /s/ Isaac E. Ciechanover
Isaac E. Ciechanover, M.D.
Chief Executive Officer

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Isaac E. Ciechanover and John F. McGrath, Jr., and each of them, as his or her true and lawful attorneys-in-fact and agents, each with the full power of substitution, for him or her and in his or her name, place or stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Annual Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their, his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Isaac E. Ciechanover Isaac E. Ciechanover, M.D.	President and Chief Executive Officer (*principal executive officer*)	March 4, 2016
/s/ John F. McGrath, Jr. John F. McGrath, Jr.	Chief Financial Officer (*principal financial and accounting officer*)	March 4, 2016
/s/ Eric Dobmeier Eric Dobmeier	Director	March 4, 2016
/s/ Matthew K. Fust Matthew K. Fust	Director	March 4, 2016
/s/ Carol G. Gallagher Carol G. Gallagher, Pharm.D.	Director	March 4, 2016
/s/ William Heiden William Heiden	Director	March 4, 2016
/s/ Joel S. Marcus Joel S. Marcus	Director	March 4, 2016
/s/ Beth Seidenberg Beth Seidenberg, M.D.	Director	March 4, 2016

EXHIBIT INDEX

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
3.1	Amended and Restated Certificate of Incorporation of Atara Biotherapeutics, Inc.	S-1	333-196936	3.4	06/20/2014	
3.2	Amended and Restated Bylaws of Atara Biotherapeutics, Inc.	S-1	333-196936	3.4	06/20/2014	
4.1	Form of Common Stock Certificate	S-1/A	333-196936	4.1	07/10/2014	
4.2	Investor Rights Agreement, by and among Atara Biotherapeutics, Inc. and the stockholders named therein, dated March 31, 2014	S-1	333-196936	4.2	06/20/2014	
10.1*	2014 Equity Incentive Plan	S-1/A	333-196936	10.1	07/10/2014	
10.2*	Forms of Option Agreement and Option Grant Notice under the 2014 Equity Incentive Plan	S-1	333-196936	10.2	06/20/2014	
10.3*	Form of Restricted Stock Unit Agreement and Restricted Stock Unit Grant Notice under the 2014 Equity Incentive Plan	S-1	333-196936	10.3	06/20/2014	
10.4*	Nina Biotherapeutics, Inc. 2012 Equity Incentive Plan	S-1	333-196936	10.4	06/20/2014	
10.5*	Pinta Biotherapeutics, Inc. 2012 Equity Incentive Plan	S-1	333-196936	10.5	06/20/2014	
10.6*	Santa Maria Biotherapeutics, Inc. 2012 Equity Incentive Plan	S-1	333-196936	10.6	06/20/2014	
10.7*	Form of Stock Unit Agreement under the Nina Biotherapeutics, Inc. 2012 Equity Incentive Plan, Pinta Biotherapeutics, Inc. 2012 Equity Incentive Plan and Santa Maria Biotherapeutics, Inc. 2012 Equity Incentive Plan	S-1	333-196936	10.7	06/20/2014	
10.8*	2014 Employee Stock Purchase Plan	S-1/A	333-196936	10.8	07/10/2014	
10.9*	Form of Indemnification Agreement made by and between Atara Biotherapeutics, Inc. and each of its directors and executive officers	S-1	333-196936	10.9	06/20/2014	
10.10*	Amended and Restated Executive Employment Agreement by and between Atara Biotherapeutics, Inc. and Isaac E. Ciechanover, dated October 12, 2015	8-K	001-36548	10.1	10/16/2015	
10.11*	Amended and Restated Executive Employment Agreement between Atara Biotherapeutics, Inc. and John McGrath, dated October 12, 2015	8-K	001-36548	10.2	10/16/2015	
10.12*	Amended and Restated Executive Employment Agreement between Atara Biotherapeutics, Inc. and Christopher Haqq, dated October 12, 2015	8-K	001-36548	10.3	10/16/2015	
10.13*	Amended and Restated Executive Employment Agreement between Atara Biotherapeutics, Inc. and Mitchall G. Clark, dated October 12, 2015	8-K	001-36548	10.4	10/16/2015	
10.14*	Amended and Restated Executive Employment Agreement between Atara Biotherapeutics, Inc. and Gad Soffer, dated October 12, 2015	S-1	333-196936	10.14	06/20/2014	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.15*	Amended and Restated Executive Employment Agreement between Atara Biotherapeutics, Inc. and Heather D. Turner, dated October 12, 2015	S-1/A	333-205347	10.31	07/07/2015	
10.16†	Exclusive License Agreement, by and between Amgen Inc. and Nina Biotherapeutics, Inc., dated as of September 7, 2012	S-1/A	333-196936	10.15	07/10/2014	
10.17†	Amendment No. 1 to Exclusive License Agreement, by and between Amgen Inc. and Nina Biotherapeutics, Inc., dated as of October 22, 2012	S-1	333-196936	10.16	06/20/2014	
10.18†	Amendment No. 2 to Exclusive License Agreement, by and between Amgen Inc. and Nina Biotherapeutics, Inc., dated as of September 7, 2012	S-1	333-196936	10.17	06/20/2014	
10.19†	Exclusive License Agreement, by and between Amgen Inc. and Santa Maria Biotherapeutics, Inc., dated as of September 7, 2012	S-1/A	333-196936	10.21	07/10/2014	
10.20†	Amendment No. 1 to Exclusive License Agreement, by and between Amgen Inc. and Santa Maria Biotherapeutics, Inc., dated as of October 22, 2012	S-1	333-196936	10.22	06/20/2014	
10.21†	Amendment No. 2 to Exclusive License Agreement, by and between Amgen Inc. and Santa Maria Biotherapeutics, Inc., dated as of July 29, 2013	S-1	333-196936	10.23	06/20/2014	
10.22†	Amendment No. 3 to Exclusive License Agreement, by and between Amgen Inc. and Santa Maria Biotherapeutics, Inc., dated as of April 4, 2014	S-1	333-196936	10.24	06/20/2014	
10.23	Sublease Agreement, by and between Atara Biotherapeutics, Inc. and Accesia, Inc., dated as of September 11, 2014	S-1/A	333-196936	10.28	09/26/2014	
10.24†	Exclusive Option Agreement, by and between Atara Biotherapeutics, Inc. and Memorial Sloan Kettering Cancer Center, dated as of September 19, 2014	10-Q	001-36548	10.29	05/11/2015	
10.25†	Amendment Number One to the Exclusive Option Agreement, by and between Atara Biotherapeutics, Inc. and Memorial Sloan Kettering Cancer Center, dated as of June 12, 2015	10-Q	001-36548	10.32	08/07/2015	
10.26†	Exclusive License Agreement, by and between Atara Biotherapeutics, Inc. and Memorial Sloan Kettering Cancer Center, dated as of June 12, 2015	S-1	333-205347	10.30	06/29/2015	
10.27	Office Lease, by and between Atara Biotherapeutics, Inc.and BPG Rock Westlake, LLC, dated January 7, 2015	10-Q	001-36548	10.33	11/06/2015	
10.28	First Amendment to Lease, by and between BPG Rock Westlake, LLC and Atara Biotherapeutics, Inc., dated as of September 9, 2015	10-Q	001-36548	10.34	11/06/2015	
10.29	Office Lease, by and between BXP 611 Gateway Center LP and Atara Biotherapeutics, Inc., dated as of December 9, 2015					X
21.1	List of subsidiaries					X

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
23.1	Consent of Independent Registered Public Accounting Firm					X
24.1	Power of Attorney (included on signature page)					X
31.1	Certification by Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification by Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
32.1(1)	Certifications of Chief Executive Officer and Chief Financial Officer pursuant to 18 USC Section 1350 as adopted pursuant to Section 906 of The Sarbanes-Oxley Act of 2002.					X
101.INS	XBRL Instance Document.					X
101.SCH	XBRL Taxonomy Extension Schema Document.					X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.					X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.					X
101.LAB	XBRL Taxonomy Extension Labels Linkbase Document.					X
101.PRE	XBRL Taxonomy Extension Presentation LinkbaseDocument.					X

† Confidential treatment has been granted for a portion of this exhibit.

* Indicates management contract or compensatory plan or arrangement.

(1) The certifications attached as Exhibit 32.1 accompany this Annual Report on Form 10-K pursuant to 18 USC. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, and shall not be deemed “filed” by the Registrant for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

Exhibit 10.29
Executed December 9, 2015

OFFICE LEASE

611 GATEWAY BOULEVARD

BP GATEWAY CENTER LLC,
a Delaware limited liability company

as Landlord,

and

ATARA BIOTHERAPEUTICS, INC.,
a Delaware corporation ,

as Tenant.

EXHIBITS

611 GATEWAY BOULEVARD

OFFICE LEASE

This Office Lease (the " **Lease**"), dated as of the date set forth in Section 1 of the Summary of Basic Lease Information (the "**Summary**"), below, is made by and between BXP 611 GATEWAY CENTER LP, a Delaware limited partnership ("**Landlord**"), and ATARA BIOTHERAPEUTICS, INC., a Delaware corporation (" **Tenant**").

SUMMARY OF BASIC LEASE INFORMATION

TERMS OF LEASE	DESCRIPTION
1.Date:	November 25, 2015
2.Premises (Article 1).	
2.1Building:	611 Gateway Boulevard, South San Francisco, California, containing 260,337 rentable square feet of space.
2.2Premises:	13,670 rentable square feet of space located on the ninth (9th) floor of the Building and commonly known as Suite 900, as further set forth in **Exhibit A** to the Office Lease.
3.Lease Term (Article 2).	
3.1Lease Term:	Approximately five (5) years and one (1) month.
3.2Lease Commencement Date:	The earlier to occur of (i) the date upon which Tenant first commences to conduct business in the Premises, and (ii) the date that occurs three (3) months following the date upon which Landlord delivers possession of the Premises to Tenant for the construction of the "Tenant Improvement pursuant to the terms of the Tenant Work Letter attached hereto as **Exhibit B** (the "**Delivery Date**"). Landlord anticipated that the Delivery Date shall occur on February 1, 2016.

3.3Lease Expiration Date:	If the Lease Commencement Date shall be the first day of a calendar month, then the day immediately preceding the sixty-first (61st) month anniversary of the Lease Commencement Date; or if the Lease Commencement Date shall be other than the first day of a calendar month, then the last day of the month in which the sixty-first (61st) month anniversary of the Lease Commencement Date occurs.

4.Base Rent (Article 3):

Period During Lease Term	Annual Base Rent	Monthly Installment of Base Rent	Approximate Monthly Base Rental Rate Per Rentable Square Foot
Lease Year 1*	$549,534.00	$45,794.50	$3.35
Lease Year 2	$566,020.08	$47,168.34	$3.45
Lease Year 3	$583,000.68	$48,583.39	$3.55
Lease Year 4	$600,490.68	$50,040.89	$3.66
Lease Year 5	$618,505.32	$51,542.11	$3.77
Lease Year 6 (one month)	$637,060.56	$53,088.38	$3.88

* Tenant's obligation to pay Base Rent during the first (1st) full calendar month of the Lease Term shall be subject to the Rent Abatement, as set forth in Section 3.2 of the Lease.

**The Monthly Installment of Base Rent for Lease Year 1 was calculated by multiplying $3.35 by the number of rentable square feet of space in the Premises. In all subsequent periods (i.e., commencing in Lease Year 2), the calculation of Annual Base Rent reflects an annual increase of 3.0%.

5.Base Year (Article 4):	Calendar year 2016.
6.Tenant's Share (Article 4):	5.2509%.
7.Permitted Use (Article 5):	General office use.
8.Letter of Credit (Article 21):	$194,333.56

9.Address of Tenant (Article 28):	Atara Biotherapeutics, Inc. 701 Gateway Boulevard, Suite 200 South San Francisco, CA 94080 Attn: Office of General Counsel (Prior to and after Lease Commencement Date)
10.Address of Landlord (Article 28):	See Article 28 of the Lease.
11.Broker(s) (Section 29.24):	Landlord: Cushman & Wakefield Tenant: Newmark Cornish & Carey
12.Tenant Improvement Allowance (**Exhibit B**):	$341,750.00 (*i.e.*, $25.00 per rentable square foot of the Premises multiplied by 13,670 rentable square feet).

ARTICLE 1

PREMISES, BUILDING, PROJECT, AND COMMON AREAS

1.1 **Premises, Building, Project and Common Areas**.

1.1.1 **The Premises**. Landlord hereby leases to Tenant and Tenant hereby leases from Landlord the premises set forth in Section 2.2 of the Summary (the "**Premises**"). The outline of the Premises is set forth in **Exhibit A** attached hereto and each floor or floors of the Premises has the number of rentable square feet as set forth in Section 2.2 of the Summary. The parties hereto agree that the lease of the Premises is upon and subject to the terms, covenants and conditions herein set forth, and Tenant covenants as a material part of the consideration for this Lease to keep and perform each and all of such terms, covenants and conditions by it to be kept and performed and that this Lease is made upon the condition of such performance. The parties hereto hereby acknowledge that the purpose of **Exhibit A** is to show the approximate location of the Premises in the "Building," as that term is defined in Section 1.1.2, below, only, and such Exhibit is not meant to constitute an agreement, representation or warranty as to the construction of the Premises, the precise area thereof or the specific location of the "Common Areas," as that term is defined in Section 1.1.3, below, or the elements thereof or of the accessways to the Premises or the "Project," as that term is defined in Section 1.1.2, below. Except as specifically set forth in this Lease and in the Tenant Work Letter attached hereto as **Exhibit B** (the "**Tenant Work Letter**"), Tenant shall accept the Premises in its presently existing "as-is" condition and Landlord shall not be obligated to provide or pay for any improvement work or services related to the improvement of the Premises. Tenant also acknowledges that neither Landlord nor any agent of Landlord has made any representation or warranty regarding the condition of the Premises, the Building or the Project or with respect to the suitability of any of the foregoing for the conduct of Tenant's business, except as specifically set forth in this Lease and the Tenant Work Letter. Except as set forth in the Tenant Work Letter, the taking of possession of the Premises by Tenant shall conclusively establish that the Premises and the Building were at such time in good and sanitary order, condition and repair. For purposes of Section 1938 of the California Civil Code, Landlord hereby discloses to Tenant, and Tenant hereby acknowledges, that the Premises have not undergone inspection by a Certified Access Specialist (CASp).

1.1.2 **The Building and The Project**. The Premises are a part of the building set forth in Section 2.1 of the Summary (the "**Building**"). The Building is part of an office project known as "Gateway Center." The term "**Project**," as used in this Lease, shall mean (i) the Building and the Common Areas, (ii) the land (which is improved with landscaping, subterranean parking facilities and other improvements) upon which the Building and the Common Areas are located, (iii) those certain other office buildings located in the vicinity of the Building and known as 601 Gateway Boulevard and 651 Gateway Boulevard, respectively, and the land upon which such office buildings are located, and (iv) at Landlord's discretion, any additional real property, areas, land, buildings or other improvements added thereto outside of the Project.

1.1.3 **Common Areas**. Tenant shall have the non-exclusive right to use in common with other tenants in the Project, and subject to the rules and regulations referred to in

Article 5 of this Lease, those portions of the Project which are provided, from time to time, for use in common by Landlord, Tenant and any other tenants of the Project (such areas, together with such other portions of the Project designated by Landlord, in its discretion, including certain areas designated for the exclusive use of certain tenants, or to be shared by Landlord and certain tenants, are collectively referred to herein as the "**Common Areas**"). The Common Areas shall consist of the "Project Common Areas" and the " Building Common Areas." The term " **Project Common Areas**," as used in this Lease, shall mean the portion of the Project designated as such by Landlord, which Project Common Areas may include, from time to time, in Landlord's sole discretion, a conference center and other amenities. The term "**Building Common Areas**," as used in this Lease, shall mean the portions of the Common Areas located within the Building designated as such by Landlord. The manner in which the Common Areas are maintained and operated shall be at the reasonable discretion of Landlord (but shall at least be consistent with the manner in which the common areas of the "Comparable Buildings," as that term is defined below, are maintained and operated) and the use thereof shall be subject to such rules, regulations and restrictions as Landlord may make from time to time. Landlord reserves the right to close temporarily, make alterations or additions to, or change the location of elements of the Project and the Common Areas. As used in this Lease, the term "**Comparable Buildings**," shall be the Building and the other office buildings in the Project, and those other first class office buildings of comparable height, age, size, location, quality of construction and appearance, service and amenities, and with comparable covered or structure parking, which are located in office projects of comparable size as the project, and are located in the City of South San Francisco.

1.2 **Rentable Square Feet of Premises and Building** . For purposes of this Lease, Landlord and Tenant hereby stipulate and agree that the "**rentable square feet**" in the Premises and the Building, as the case may be, is as set forth in Sections 2.1 and 2.2, respectively, of the Summary, and shall not be subject to remeasurement unless there is a physical changes in the size of the Premises or the Building.

1.3 **Right of First Offer .** Landlord hereby grants to the originally named Tenant herein ("**Original Tenant**") a right of first offer with respect to the leasable space located on the ninth (9 th) floor of the Building which is not part of the initial Premises, as more specifically set forth on **Exhibit A-1** , attached hereto (the "**First Offer Space**"). Notwithstanding the foregoing, such first offer right of Tenant shall commence only following the expiration or earlier termination of the first lease or leases (including renewals and extensions, whether pursuant to express rights or otherwise) executed by Landlord with respect to the First Offer Space after the date of this Lease (the "**Initial First Offer Space Lease(s)** "), and such right of first offer shall be subordinate to all rights of tenants under leases of the First Offer Space existing as of the date hereof, and all rights of other tenants of the Project, which rights relate to the First Offer Space and which rights are set forth in leases of space in the Project existing as of the date hereof, each including any expansion, first offer, first negotiation and other similar rights, regardless of whether such rights are executed strictly in accordance with their respective terms or pursuant to lease amendments or new leases (all such tenants under Initial First Offer Space Lease(s) and other tenants of the Project, collectively, the "**Superior Right Holders**"). In addition, if Tenant, following its receipt of a "First Offer Notice," as that term is defined in Section 1.3.1 of this Lease, below, fails to exercise its right to lease all or any portion of the First Offer Space, then Landlord shall have a right to enter into an interim lease (an "**Interim Lease**") with a third party

with respect to such space (i.e., the space set forth in the First Offer Notice), and Tenant's right of first offer as set forth in this Section 1.3 shall be subordinate the all rights of the tenant under the Interim Lease and such tenant shall be deemed a Superior Right Holder. Tenant's right of first offer shall be on the terms and conditions set forth in this Section 1.3.

1.3.1 **Procedure for Offer.** Landlord shall notify Tenant (a "**First Offer Notice**") from time to time when the First Offer Space or any portion thereof becomes available for lease to third parties, provided that no Superior Right Holder wishes to lease such space. Pursuant to such First Offer Notice, Landlord shall offer to lease to Tenant the then available First Offer Space. A First Offer Notice shall describe the space so offered to Tenant and shall set forth the "First Offer Rent," as that term is defined in Section 1.3.3, below, and the other economic terms upon which Landlord is willing to lease such space to Tenant. The rentable square footage of the space so offered to Tenant shall be as set forth in the First Offer Notice.

1.3.2 **Procedure for Acceptance.** If Tenant wishes to exercise Tenant's right of first offer with respect to the space described in a First Offer Notice, then within five (5) business days of delivery of such First Offer Notice to Tenant, Tenant shall deliver notice to Landlord of Tenant's intention to exercise its right of first offer with respect to the entire space described in such First Offer Notice on the terms contained therein; provided, however, Tenant may irrevocably exercise Tenant's right of first offer with respect to the space described in the First Offer Notice pursuant to the terms of this Section 1.3.2, and, concurrently therewith, object to Landlord's determination of the First Offer Rent, as set forth in the First Offer Notice, in which case the First Offer Rent shall be determined pursuant to the terms of Section 1.3.3 of this Lease, below. If Tenant does not so notify Landlord within the five (5) business day period, then Landlord shall be free to lease the space described in such First Offer Notice to anyone to whom Landlord desires on any terms Landlord desires. Notwithstanding anything to the contrary contained herein, Tenant must elect to exercise its right of first offer, if at all, with respect to all of the space offered by Landlord to Tenant at any particular time, and Tenant may not elect to lease only a portion thereof. If Tenant does not exercise its right of first offer with respect to any space described in a First Offer Notice or if Tenant fails to respond to a First Offer Notice within five (5) business days of delivery thereof, then Tenant's right of first offer as set forth in this Section 1.3 shall terminate as to all of the space described in such First Offer Notice until such time as Landlord has entered into an Interim Lease with respect to such space, at which time Tenant's right of first offer as set forth in this Section 1.3 shall be effective following the expiration or earlier termination of such Interim Lease.

1.3.3 **First Offer Space Rent.** The annual "Rent," as that term is defined in Section 4.1 of this Lease, payable by Tenant for the First Offer Space (the "**First Offer Rent**") shall be the "Fair Rental Value," as that term is defined below, for the First Offer Space, pursuant to transactions consummated within the nine (9)-month period preceding the "First Offer Commencement Date," as that term is defined in Section 1.3.5 of this Lease. The "**Fair Rental Value**," as used in this Lease, shall be equal to the annual rent per rentable square foot (including additional rent and considering any "base year" or "expense stop" applicable thereto), including all escalations, at which tenants (pursuant to leases consummated within the nine (9) month period preceding the First Offer Commencement Date), are leasing non-sublease, non-encumbered, non-equity space which is not significantly greater or smaller in size than the First Offer Space, for a comparable lease term, in an arm's length transaction, which comparable space

is located in the Comparable Buildings (transactions satisfying the foregoing criteria shall be known as the "**Comparable Transactions**"), taking into consideration the following concessions (the " **Concessions**"): (a) rental abatement concessions, if any, being granted such tenants in connection with such comparable space; (b) tenant improvements or allowances provided or to be provided for such comparable space, and taking into account the value, if any, of the existing improvements in the First Offer Space, such value to be based upon the age, condition, design, quality of finishes and layout of the improvements and the extent to which the same can be utilized by a general office user other than Tenant; and (c) other reasonable monetary concessions being granted such tenants in connection with such comparable space; provided, however, that in calculating the Fair Rental Value, no consideration shall be given to (i) the fact that Landlord is or is not required to pay a real estate brokerage commission in connection with the First Offer Space, or the fact that landlords are or are not paying real estate brokerage commissions in connection with such comparable space, and (ii) any period of rental abatement, if any, granted to tenants in comparable transactions in connection with the design, permitting and construction of tenant improvements in such comparable spaces (provided that the foregoing shall in no way eliminate or alter Tenant's right to the concession set forth in item (a), above, to the extent applicable). The Fair Rental Value shall additionally include a determination as to whether, and if so to what extent, Tenant must provide Landlord with financial security, such as a letter of credit or guaranty, for Tenant's Rent obligations in connection with First Offer Space. Such determination shall be made by reviewing the extent of financial security then generally being imposed in Comparable Transactions from tenants of comparable financial condition and credit history to the then existing financial condition and credit history of Tenant (with appropriate adjustments to account for differences in the then-existing financial condition of Tenant and such other tenants). The Concessions (A) shall be reflected in the effective rental rate (which effective rental rate shall take into consideration the total dollar value of such Concessions as amortized on a straight-line basis over the applicable term of the Comparable Transaction (in which case such Concessions evidenced in the effective rental rate shall not be granted to Tenant)) payable by Tenant, or (B) at Landlord's election, all such Concessions shall be granted to Tenant in kind.

1.3.3.1 **Determination of First Offer Rent**. In the event Tenant timely and appropriately exercises its right of first offer, and rejects Landlord's First Offer Rent, then Landlord and Tenant shall attempt to agree upon the First Offer Rent using their good-faith efforts. If Landlord and Tenant fail to reach agreement on or before the later of (i) that date that occurs thirty (30) days following Tenant's objection to the First Offer Rent, and (ii) the date that occurs ninety (90) day prior to the estimated date of delivery of the First Offer Space to Tenant (as applicable, the "**Outside Agreement Date**"), then each party shall make a separate determination of the First Offer Rent within five (5) days, and such determinations shall be submitted to arbitration in accordance with Sections 1.3.3.2 through 1.3.3.9, below.

1.3.3.2 Landlord and Tenant shall each appoint one arbitrator who shall be, at the option of the appointing party, a real estate broker, appraiser or attorney who shall have been active over the ten (10) year period ending on the date of such appointment in the leasing or appraisal, as the case may be, of commercial high-rise properties in the vicinity of the Building. The determination of the arbitrators shall be limited solely to the issue of whether Landlord's or Tenant's submitted First Offer Rent is the closest to the actual First Offer Rent, taking into account the requirements of this Section 1.3, as determined by the arbitrators. Each such

arbitrator shall be appointed within fifteen (15) days after the Outside Agreement Date. Landlord and Tenant may consult with their selected arbitrators prior to appointment and may select an arbitrator who is favorable to their respective positions. The arbitrators so selected by Landlord and Tenant shall be deemed "**Advocate Arbitrators**."

1.3.3.3 The two (2) Advocate Arbitrators so appointed shall be specifically required pursuant to an engagement letter within ten (10) days of the date of the appointment of the last appointed Advocate Arbitrator to agree upon and appoint a third arbitrator ("**Neutral Arbitrator**") who shall be qualified under the same criteria set forth hereinabove for qualification of the two Advocate Arbitrators, except that neither the Landlord or Tenant or either parties' Advocate Arbitrator may, directly or indirectly, consult with the Neutral Arbitrator prior or subsequent to his or her appearance. The Neutral Arbitrator shall be retained via an engagement letter jointly prepared by Landlord's counsel and Tenant's counsel.

1.3.3.4 The three arbitrators shall, within thirty (30) days of the appointment of the Neutral Arbitrator, reach a decision as to whether the parties shall use Landlord's or Tenant's submitted First Offer Rent, and shall notify Landlord and Tenant thereof.

1.3.3.5 The decision of the majority of the three arbitrators shall be binding upon Landlord and Tenant.

1.3.3.6 If either Landlord or Tenant fails to appoint an Advocate Arbitrator within fifteen (15) days after the Outside Agreement Date, then either party may petition the presiding judge of the Superior Court of San Mateo County to appoint such Advocate Arbitrator subject to the criteria in this Section 1.3, or if he or she refuses to act, either party may petition any judge having jurisdiction over the parties to appoint such Advocate Arbitrator.

1.3.3.7 If the two (2) Advocate Arbitrators fail to agree upon and appoint the Neutral Arbitrator, then either party may petition the presiding judge of the Superior Court of San Mateo County to appoint the Neutral Arbitrator, subject to criteria in Section 2.2.3.1 of this Lease, or if he or she refuses to act, either party may petition any judge having jurisdiction over the parties to appoint such arbitrator.

1.3.3.8 The cost of the arbitration and the fees of the Neutral Arbitrator shall be paid by Landlord and Tenant equally. Each party shall pay and bear the fees and expenses of its Advocate Arbitrator.

1.3.3.9 In the event that the First Offer Rent shall not have been determined pursuant to the terms hereof prior to the First Offer Commencement Date, Tenant shall be required to pay the First Offer Rent initially provided by Landlord to Tenant, and upon the final determination of the First Offer Rent the payments made by Tenant shall be reconciled with the actual amounts of First Offer Rent due, and the appropriate party shall make any corresponding payment to the other party.

1.3.4 **Construction In First Offer Space.** Tenant shall accept the First Offer Space in its then existing "as is" condition. The construction of improvements in the First Offer Space shall comply with the terms of Article 8 of this Lease.

1.3.5 **Amendment to Lease.** If Tenant timely exercises Tenant's right to lease First Offer Space as set forth herein, then, within fifteen (15) days thereafter, Landlord and Tenant shall execute an amendment to this Lease adding such First Offer Space to the Premises upon the terms and conditions as set forth in the First Offer Notice therefor and this Section 1.3. Tenant shall commence payment of Rent for such First Offer Space, and the term of such First Offer Space shall commence, upon the date of delivery of such First Offer Space to Tenant (the "**First Offer Commencement Date**") and terminate on the date set forth in the First Offer Notice therefor.

1.3.6 **Termination of Right of First Offer .** The rights contained in this Section 1.3 shall be personal to Original Tenant, and may only be exercised by Original Tenant (and not by any assignee, sublessee or other "Transferee," as that term is defined in Section 14.1 of this Lease, of Tenant's interest in this Lease) if Original Tenant occupies the entire Premises. Tenant shall not have the right to lease First Offer Space, as provided in this Section 1.3, if, as of the date of the attempted exercise of any right of first offer by Tenant, or as of the scheduled date of delivery of such First Offer Space to Tenant, Tenant is in default under this Lease or Tenant has previously been in default under this Lease more than once.

ARTICLE 2

LEASE TERM

2.1 **Lease Term**. The terms and provisions of this Lease shall be effective as of the date of this Lease. The term of this Lease (the "**Lease Term**") shall commence on the "Lease Commencement Date," as that term is set forth in Section 3.2 of the Summary, and shall terminate on the "Lease Expiration Date, " as that term is set forth in Section 3.3 of the Summary, unless this Lease is sooner terminated as hereinafter provided. If Landlord is unable for any reason to deliver possession of the Premises to Tenant on any specific date, then Landlord shall not be subject to any liability for its failure to do so, and such failure shall not affect the validity of this Lease or the obligations of Tenant hereunder; provided, however, if the existing tenant fails to surrender possession of the Premises to Landlord on or before the scheduled expiration or earlier termination of the existing tenant's lease, then Landlord shall use commercially reasonable efforts to obtain possession of the Premises as soon as reasonably practical thereafter. For purposes of this Lease, the term "**Lease Year**" shall mean each consecutive twelve (12) month period during the Lease Term. At any time during the Lease Term, Landlord may deliver to Tenant a notice in the form as set forth in **Exhibit C**, attached hereto, as a confirmation only of the information set forth therein, which Tenant shall execute and return to Landlord within five (5) days of receipt thereof; provided, however, Tenant's failure to execute and return such notice to Landlord within such time shall be conclusive upon Tenant that the information set forth in such notice is as specified therein.

2.2 **Occurrence of Delivery Date.** Landlord shall use its commercially reasonable, good faith efforts to cause the Delivery Date to occur on or before February 1, 2016.

2.2.1 **Outside Date of Delivery Date.** If Landlord does not cause the Delivery Date to occur by August 1, 2016 (the "**Outside Date**"), then the sole remedy of Tenant for such failure shall be the right to deliver a notice to Landlord (a "**Termination Notice**")

electing to terminate this Lease effective upon the date occurring five (5) business days following receipt by Landlord of the Termination Notice (the "**Effective Date**"). The Termination Notice must be delivered by Tenant to Landlord, if at all, not earlier than the Outside Date (as the same may be extended pursuant to the terms of Section 2.2.3, below) nor later than five (5) business days after the Outside Date. The effectiveness of any such Termination Notice delivered by Tenant to Landlord shall be governed by the terms of this Section 2.2.

2.2.2 **Extension of Outside Date After Delivery of the Termination Notice.** If Tenant delivers a Termination Notice to Landlord, then Landlord shall have the right to suspend the occurrence of the Effective Date for a period ending thirty (30) days after the Effective Date by delivering written notice to Tenant, prior to the Effective Date, that, in Landlord's reasonable, good faith judgment, the Delivery Date will occur within thirty (30) days after the Effective Date (the "**Termination Extension Notice**"). If the Delivery Date occurs within such thirty (30) day suspension period, then the Termination Notice shall be of no force or effect, but if the Delivery Date does not occur within such thirty (30) day suspension period, then this Lease shall terminate upon the expiration of such thirty (30) day suspension period.

2.2.3 **Extension of Outside Date Prior to the Delivery of Termination Notice.** If, prior to the Outside Date, Landlord determines that the Delivery Date will not occur by the Outside Date, then Landlord shall have the right to deliver a written notice to Tenant stating Landlord's opinion as to the date by which the Delivery Date will occur, and Tenant shall be required, within five (5) business days after receipt of such notice, to deliver a notice to Landlord pursuant to which Tenant shall elect either (i) to terminate this Lease, in which case this Lease shall terminate and be of no further force or effect upon Landlord's receipt of such notice, or (ii) to agree to extend the Outside Date to that date set forth in Landlord's notice to Tenant. Failure by Tenant to deliver such notice or to make such election shall be deemed to be Tenant's agreement to extend the Outside Date to that date set forth in Landlord's notice to Tenant. If Tenant agrees or is deemed to have agreed to extend the Outside Date, then Landlord shall have a continuing right to deliver a notice to Tenant which requests Tenant to elect either to terminate this Lease or to further extend the Outside Date as set forth in this Section 2.2.3, above, until the occurrence of the Delivery Date or until this Lease is terminated. Upon the delivery of a Termination Notice by Tenant pursuant to Section 2.2.1 above in connection with an Outside Date extended pursuant to this Section 2.2.3, Landlord shall also have the same right to deliver the Termination Extension Notice as to the new Outside Date, as set forth in Section 2.2.2, above.

2.2.4 **Other Terms.** The Effective Date and the Outside Date shall be extended to the extent of any delays beyond the reasonable control of Landlord, including any delay or delays caused by "Force Majeure," as that term is defined in Section 29.16 of this Lease. Upon any termination as set forth in this Section 2.2, Landlord and Tenant shall be relieved from any and all liability to each other resulting hereunder except that Landlord shall return to Tenant the Security Deposit and any prepaid rent. Tenant's rights to terminate this Lease, as set forth in this Section 2.2, shall be Tenant's sole and exclusive remedy at law or in equity for the failure of the Delivery Date to occur as set forth above.

ARTICLE 3

BASE RENT

3.1 **Base Rent**. Commencing on the Lease Commencement Date, Tenant shall pay, without prior notice or demand, base rent ("**Base Rent**") as set forth in Section 4 of the Summary, payable in equal monthly installments as set forth in Section 4 of the Summary in advance on or before the first day of each and every calendar month during the Lease Term, without any setoff or deduction whatsoever. The Base Rent for the first full month of the Lease Term (following the "Rent Abatement Period," as that term is defined in Section 3.2, below) shall be paid at the time of Tenant's execution of this Lease. If any Rent payment date (including the Lease Commencement Date) falls on a day of the month other than the first day of such month or if any payment of Rent is for a period which is shorter than one month, the Rent for any fractional month shall accrue on a daily basis for the period from the date such payment is due to the end of such calendar month or to the end of the Lease Term at a rate per day which is equal to 1/365 of the applicable annual Rent. All other payments or adjustments required to be made under the terms of this Lease that require proration on a time basis shall be prorated on the same basis. Until notice of some other designation is given to Tenant in accordance with the provisions of Article 28 of this Lease, Base Rent and all other charges shall be paid by remittance to or for the order of BXP 611 Gateway Center LP by one of the following methods:

(i) **By ACH Transfer & Direct Deposit**.

Bank of America
345 Montgomery Street, Concourse Level #1499
San Francisco, California 94101
ABA# 121-000-358
Account: Boston Properties L.P. Operating Account
Account Number: 14993-06215
Amount: [fill in appropriate dollar amount]
Reference: [fill in Tenant Name and Tenant Number]

or

(ii) **By Mail**.

Gateway Center LLC
C/O Boston Properties, LP
Property 5
P. O. Box 742841
Los Angeles, CA 90074-2841

or

(iii) **By Overnight Delivery**.

Bank of America Lock Box Services
Lockbox LAC-742841

2706 Media Center Drive
Los Angeles, California 90065.

3.2 **Abated Base Rent**. Provided that Tenant is not then in default of this Lease, then during the first full calendar month of the Lease Term (the "**Rent Abatement Period** "), Tenant shall not be obligated to pay any Base Rent otherwise attributable to the Premises during such Rent Abatement Period (the "**Rent Abatement**"). Landlord and Tenant acknowledge that the aggregate amount of the Rent Abatement equals $45,794.50. Tenant acknowledges and agrees that the foregoing Rent Abatement has been granted to Tenant as additional consideration for entering into this Lease, and for agreeing to pay the rental and performing the terms and conditions otherwise required under this Lease. If Tenant shall be in default under this Lease, and shall fail to cure such default within the notice and cure period, if any, permitted for cure pursuant to terms and conditions of the Lease, or if this Lease is terminated for any reason other than Landlord's breach of this Lease, then the dollar amount of the unapplied portion of the Rent Abatement as of the date of such default or termination, as the case may be, shall be converted to a credit to be applied to the Base Rent applicable at the end of the Lease Term and Tenant shall immediately be obligated to begin paying Base Rent for the Premises in full.

ARTICLE 4

ADDITIONAL RENT

4.1 **General Terms**. In addition to paying the Base Rent specified in Article 3 of this Lease, Tenant shall pay (i) "Tenant's Share" of the annual "Building Direct Expenses," as those terms are defined in Sections 4.2.10 and 4.2.2 of this Lease, respectively, which are in excess of the amount of Building Direct Expenses applicable to the "Base Year," as that term is defined in Section 4.2.1 of this Lease, and (ii) Tenant's Share of "Capital Expenses," as that term is defined in Section 4.2.9, below, pursuant to Section 4.6 of this Lease; provided, however, that in no event shall any decrease in Building Direct Expenses for any "Expense Year," as that term is defined in Section 4.2.6 of this Lease, below Building Direct Expenses for the Base Year entitle Tenant to any decrease in Base Rent or any credit against sums due under this Lease. Such payments by Tenant, together with any and all other amounts payable by Tenant to Landlord pursuant to the terms of this Lease, are hereinafter collectively referred to as the "**Additional Rent**," and the Base Rent and the Additional Rent are herein collectively referred to as " **Rent.**" All amounts due under this Article 4 as Additional Rent shall be payable for the same periods and in the same manner as the Base Rent. Without limitation on other obligations of Tenant which survive the expiration of the Lease Term, the obligations of Tenant to pay the Additional Rent provided for in this Article 4 shall survive the expiration of the Lease Term. Landlord may upon expiration of the Lease Term deliver to Tenant an estimate of any Base Rent, Additional Rent or other obligations outstanding, and Landlord may either deduct such amount from any funds otherwise payable to Tenant upon expiration or require Tenant to pay such funds immediately. Landlord shall make necessary adjustments for differences between actual and estimated Additional Rent in accordance with Section 4.4, below.

4.2 **Definitions of Key Terms Relating to Additional Rent** . As used in this Article 4, the following terms shall have the meanings hereinafter set forth:

4.2.1 "**Base Year**" shall mean the period set forth in Section 5 of the Summary.

4.2.2 "**Building Direct Expenses**" shall mean "Building Operating Expenses" and "Building Tax Expenses", as those terms are defined in Sections 4.2.3 and 4.2.4, below, respectively.

4.2.3 "**Building Operating Expenses**" shall mean the portion of "Operating Expenses," as that term is defined in Section 4.2.7 below, allocated to the tenants of the Building pursuant to the terms of Section 4.3.1 below.

4.2.4 "**Building Tax Expenses**" shall mean that portion of "Tax Expenses", as that term is defined in Section 4.2.8 below, allocated to the tenants of the Building pursuant to the terms of Section 4.3.1 below.

4.2.5 "**Direct Expenses**" shall mean "Operating Expenses" and "Tax Expenses."

4.2.6 "**Expense Year**" shall mean each calendar year in which any portion of the Lease Term falls, through and including the calendar year in which the Lease Term expires, provided that Landlord, upon notice to Tenant, may change the Expense Year from time to time to any other twelve (12) consecutive month period, and, in the event of any such change, Tenant's Share of Building Direct Expenses and Capital Expenses shall be equitably adjusted for any Expense Year involved in any such change.

4.2.7 "**Operating Expenses**" shall mean all expenses, costs and amounts of every kind and nature which Landlord pays or accrues during any Expense Year because of or in connection with the ownership, management, maintenance, security, repair, replacement, restoration or operation of the Project, or any portion thereof. Without limiting the generality of the foregoing, Operating Expenses shall specifically include any and all of the following: (i) the cost of supplying all utilities, the cost of operating, maintaining, repairing, replacing, renovating and managing the utility systems, mechanical systems, sanitary, storm drainage systems, communication systems and escalator and elevator systems, and the cost of supplies, tools, and equipment and maintenance and service contracts in connection therewith; (ii) the cost of licenses, certificates, permits and inspections and the cost of contesting any governmental enactments which may affect Operating Expenses, and the costs incurred in connection with a transportation system management program or similar program; (iii) the cost of all insurance carried by Landlord in connection with the Project as reasonably determined by Landlord (including, without limitation, commercial general liability insurance, physical damage insurance covering damage or other loss caused by fire, earthquake, flood and other water damage, explosion, vandalism and malicious mischief, theft or other casualty, rental interruption insurance and such insurance as may be required by any lessor under any present or future ground or underlying lease of the Building or Project or any holder of a mortgage, trust deed or other encumbrance now or hereafter in force against the Building or Project or any portion thereof); (iv) the cost of landscaping, decorative lighting, and relamping, the cost of maintaining fountains, sculptures, bridges and all supplies, tools, equipment and materials used in the operation, repair and maintenance of the Project, or any portion thereof; (v) the cost of parking area repair, restoration, and maintenance, including, without limitation, resurfacing, repainting, restriping and cleaning; (vi) fees, charges and other costs, including management fees (or

amounts in lieu thereof, but subject to exclusion (y), below), consulting fees (including, without limitation, any consulting fees incurred in connection with the procurement of insurance), legal fees and accounting fees, of all contractors, engineers, consultants and all other persons engaged by Landlord or otherwise incurred by or charged by Landlord in connection with the management, operation, administration, maintenance and repair of the Building and the Project; (vii) payments under any equipment rental agreements or management agreements (including the cost of any actual or charged management fee and the actual or charged rental of any management office space); (viii) wages, salaries and other compensation and benefits, including taxes levied thereon, of all persons engaged in the operation, maintenance and security of the Project; (ix) costs under any instrument pertaining to the sharing of costs by the Project; (x) operation, repair, maintenance and replacement of all systems and equipment and components thereof of the Project; (xi) the cost of janitorial, alarm, security and other services, replacement of wall and floor coverings, ceiling tiles and fixtures in common areas, maintenance and replacement of curbs and walkways, repair to roofs and re-roofing; (xii) amortization (including interest on the unamortized cost at an annual interest rate determined by Landlord) of the cost of acquiring or the rental expense of personal property used in the maintenance, operation and repair of the Project, or any portion thereof; (xiii) costs, fees, charges or assessments imposed by, or resulting from any mandate imposed on Landlord by, any federal, state or local government for fire and police protection, trash removal, community services, or other services which do not constitute "Tax Expenses" as that term is defined in Section 4.2.8, below; (xiv) advertising, marketing and promotional expenditures incurred in connection with the Project, including, without limitation, costs of signs in, on or about the Project identifying or promoting the Project; (xv) payments under any easement, license, operating agreement, declaration, restrictive covenant, or instrument pertaining to the sharing of costs by the Project or related to the use or operation of the Project; and (xvi) all costs of applying and reporting for the Project or any part thereof to seek or maintain certification under the U.S. EPA's Energy Star® rating system, the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system or a similar system or standard. Notwithstanding anything to the contrary in this Lease, the following items shall be excluded from Operating Expenses:

(a) any items included in Tax Expenses;

(b) except as permitted pursuant to items (xii) and (xiii), above, principal or interest on indebtedness, debt amortization or ground rent paid by Landlord in connection with any mortgages, deeds of trust or other financing encumbrances, or ground leases of the Building or the Project;

(c) capital improvements to the Building or the Project (provided this exclusion (c) shall not be deemed to limit Capital Expenses), and rental payments and other related expenses incurred in leasing air conditioning systems, elevators or other equipment ordinarily considered to be of a capital nature, except (i) equipment which is used in providing janitorial or similar services and which is not affixed to the Building, and (ii) equipment rented to remedy or ameliorate an emergency condition;

(d) legal, auditing, consulting and professional fees and other costs paid or incurred in connection with financings, refinancings or sales of any interest in Landlord or of Landlord's interest in the Building or the Project or in connection with any ground lease

(including, without limitation, recording costs, mortgage recording taxes, title insurance premiums and other similar costs, but excluding those legal, auditing, consulting and professional fees and other costs incurred in connection with the normal and routine maintenance and operation of the Building and/or the Project);

(e) legal fees, space planner's fees, architect's fees, leasing and brokerage commissions, advertising and promotional expenditures and any other marketing expense incurred in connection with the leasing of space in the Building (including new leases, lease amendments, lease terminations and lease renewals);

(f) the cost of any items to the extent to which such cost is reimbursed to Landlord by tenants of the Project (other than as a reimbursement of operating expenses), or other third parties, or is covered by a warranty to the extent of reimbursement for such coverage;

(g) expenditures for any leasehold improvement which is made in connection with the preparation of any portion of the Building for occupancy by any tenant of the Building or the Project;

(h) the cost of performing work or furnishing service to or for any tenant other than Tenant, at Landlord's expense, to the extent such work or service is in excess of any work or service Landlord is obligated to provide to Tenant or generally to other tenants in the Building at Landlord's expense;

(i) the cost of repairs or replacements incurred by reason of fire or other casualty, or condemnation, to the extent Landlord actually receives proceeds of property and casualty insurance policies or condemnation awards or would have received such proceeds had Landlord maintained the insurance required to be maintained by Landlord under this Lease;

(j) the cost of acquiring sculptures, paintings or other objects of fine art in the Building or the Project in excess of amounts typically spent for such items in Class A office buildings of comparable quality in the San Francisco financial district area;

(k) bad debt loss, rent loss, or reserves for bad debt or rent loss;

(l) unfunded contributions to operating expense reserves by other tenants;

(m) contributions to charitable or political organizations in excess of the greater of (1) the amounts typically spent for such contributions in Class A office buildings of comparable quality in the South San Francisco area, and (2) $50,000.00 in the aggregate in any single Expense Year;

(n) expenses related solely and exclusively to the operation of the retail space in the Project;

(o) damage and repairs necessitated by the gross negligence or willful misconduct of Landlord Parties;

(p) fees, costs and expenses incurred by Landlord in connection with or relating to claims against or disputes with tenants of the Building or the Project;

(q) interest, fines or penalties for late payment or violations of Applicable Laws by Landlord, except to the extent incurring such expense is either (1) a reasonable business expense under the circumstances, or (2) caused by a corresponding late payment or violation of an Applicable Law by Tenant, in which event Tenant shall be responsible for the full amount of such expense;

(r) the cost of remediation and removal of "Hazardous Substance," as that term is defined in Section 5.2, below, in the Building or on the Project as required by applicable laws, provided, however, that the provisions of this sub-item (r) shall not preclude the inclusion of costs with respect to materials (whether existing at the Project as of the date of this Lease or subsequently introduced to the Project) which are not, as of the date of this Lease (or as of the date of introduction), deemed to be Hazardous Substance under applicable laws but which are subsequently deemed to be Hazardous Substance under applicable laws (it being understood and agreed that Tenant shall nonetheless be responsible under Section 5.2 of this Lease for all costs of remediation and removal of Hazardous Substance to the extent caused by Tenant Parties);

(s) costs for the original construction and development of the Building and nonrecurring costs for the repair or replacement of any structural portion of the Building made necessary as a result of defects in the original design, workmanship or materials;

(t) costs and expenses incurred for the administration of the entity which constitutes Landlord, as the same are distinguished from the costs of operation, management, maintenance and repair of the Building and/or the Project, including, without limitation, entity accounting and legal matters;

(u) the wages and benefits of any employee who does not devote substantially all of his or her employed time to the Project unless such wages and benefits are prorated on a reasonable basis to reflect time spent on the operation and management of the Project vis-à-vis time spent on matters unrelated to the operation and management of the Project;

(v) except as may be otherwise expressly provided in this Lease with respect to specific items, including, without limitation, any management fee paid by Landlord, the cost of any services or materials provided by any party related to Landlord, to the extent such cost exceeds, the reasonable cost for such services or materials absent such relationship in Class A office buildings of comparable quality in the San Francisco financial district area;

(w) depreciation for the Building, except as permitted pursuant to items (xii) and (xiii), above;

(x) reserves for future improvements, repairs, additions, etc.; and

(y) fees payable by Landlord for management of the Project in excess of the greater of (i) the management fee generally charged at the Comparable Buildings, and (ii) three and one-half percent (3½%) (the "**Management Fee Cap**") of Landlord's gross rental revenues, adjusted and grossed up to reflect a one hundred percent (100%) occupancy of the Project with

all tenants paying full rent, as contrasted with free rent, half-rent and the like, including base rent, pass-throughs, and parking fees (but excluding the cost of after hours services or utilities), from the Project for any calendar year or portion thereof.

If Landlord is not furnishing any particular work or service (the cost of which, if performed by Landlord, would be included in Operating Expenses and the cost incurred by Landlord for such work or service would vary with the occupancy of the Building) to a tenant who has undertaken to perform such work or service in lieu of the performance thereof by Landlord, then in order to allow Landlord to collect from Tenant and all other tenants in the Building an amount equal to what Landlord actually incurs for such work or service with respect to the other tenants (including Tenant) of the Building, Operating Expenses shall be deemed to be increased by an amount equal to the additional Operating Expenses which would reasonably have been incurred during such period by Landlord if it had at its own expense furnished such work or service to such tenant. If the Project is not at least one hundred percent (100%) occupied during all or a portion of the Base Year or any Expense Year, Landlord may elect to make an appropriate adjustment to the components of Operating Expenses for such year to determine the amount of Operating Expenses that would have been incurred had the Project been one hundred percent (100%) occupied; and the amount so determined shall be deemed to have been the amount of Operating Expenses for such year. Operating Expenses for the Base Year shall not include market-wide cost increases (including utility rate increases) due to extraordinary circumstances, including, but not limited to, Force Majeure, boycotts, strikes, conservation surcharges, security concerns, embargoes or shortages. In no event shall the components of Direct Expenses for any Expense Year related to Tax Expenses, Project utility, services, or insurance costs be less than the components of Direct Expenses related to Tax Expenses, Project utility, services, or insurance costs in the Base Year.

4.2.8 **Taxes**.

4.2.8.1 "**Tax Expenses**" shall mean all federal, state, county, or local governmental or municipal taxes, fees, charges or other impositions of every kind and nature, whether general, special, ordinary or extraordinary (including, without limitation, real estate taxes, general and special assessments, transit taxes, business taxes, leasehold taxes or taxes based upon the receipt of rent, including gross receipts or sales taxes applicable to the receipt of rent, unless required to be paid by Tenant, personal property taxes imposed upon the fixtures, machinery, equipment, apparatus, systems and equipment, appurtenances, furniture and other personal property used in connection with the Project, or any portion thereof), which shall be paid or accrued during any Expense Year (without regard to any different fiscal year used by such governmental or municipal authority) because of or in connection with the ownership, leasing and operation of the Project, or any portion thereof.

4.2.8.2 Tax Expenses shall include, without limitation: (i) Any tax on the rent, right to rent or other income from the Project, or any portion thereof, or as against the business of leasing the Project, or any portion thereof (other than any income taxes owed by Landlord); (ii) Any assessment, tax, fee, levy or charge in addition to, or in substitution, partially or totally, of any assessment, tax, fee, levy or charge previously included within the definition of real property tax, it being acknowledged by Tenant and Landlord that Proposition 13 was adopted by the voters of the State of California in the June 1978 election ("**Proposition 13**") and

that assessments, taxes, fees, levies and charges may be imposed by governmental agencies for such services as fire protection, street, sidewalk and road maintenance, refuse removal and for other governmental services formerly provided without charge to property owners or occupants, and, in further recognition of the decrease in the level and quality of governmental services and amenities as a result of Proposition 13, Tax Expenses shall also include any governmental or private assessments or the Project's contribution towards a governmental or private cost-sharing agreement for the purpose of augmenting or improving the quality of services and amenities normally provided by governmental agencies; (iii) Any assessment, tax, fee, levy, or charge allocable to or measured by the area of the Premises, the tenant improvements in the Premises, or the Rent payable hereunder, including, without limitation, any business or gross income tax or excise tax with respect to the receipt of such rent, or upon or with respect to the possession, leasing, operating, management, maintenance, alteration, repair, use or occupancy by Tenant of the Premises, or any portion thereof; (iv) Any assessment, tax, fee, levy or charge, upon this transaction or any document to which Tenant is a party, creating or transferring an interest or an estate in the Premises; and (v) All of the real estate taxes and assessments imposed upon or with respect to the Building and all of the real estate taxes and assessments imposed on the land and improvements comprising the Project.

4.2.8.3 If Tax Expenses for any period during the Lease Term or any extension thereof are increased after payment thereof for any reason, including, without limitation, error or reassessment by applicable governmental or municipal authorities, Tenant shall pay Landlord upon demand Tenant's Share of any such increased Tax Expenses included by Landlord as Building Tax Expenses pursuant to the terms of this Lease. Notwithstanding anything to the contrary contained in this Section 4.2.8 (except as set forth in Section 4.2.8.1, above), there shall be excluded from Tax Expenses (i) all excess profits taxes, franchise taxes, gift taxes, capital stock taxes, inheritance and succession taxes, estate taxes, federal and state income taxes, and other taxes to the extent applicable to Landlord's general or net income (as opposed to rents, receipts or income attributable to operations at the Project), (ii) any items included as Operating Expenses, and (iii) any items paid by Tenant under Section 4.5 of this Lease.

4.2.8.4 Notwithstanding anything to the contrary set forth in this Lease, the amount of Tax Expenses for the Base Year and any Expense Year shall be calculated without taking into account any decreases in real estate taxes obtained in connection with Proposition 8, and, therefore, the Tax Expenses in the Base Year and/or an Expense Year may be greater than those actually incurred by Landlord, but shall, nonetheless, be the Tax Expenses due under this Lease; provided that (i) any costs and expenses incurred by Landlord in securing any Proposition 8 reduction shall not be deducted from Tax Expenses nor included in Direct Expenses for purposes of this Lease, and (ii) tax refunds under Proposition 8 shall not be deducted from Tax Expenses nor refunded to Tenant, but rather shall be the sole property of Landlord. Landlord and Tenant acknowledge that the preceding sentence is not intended to in any way affect (A) the inclusion in Tax Expenses of the statutory two percent (2.0%) annual increase in Tax Expenses (as such statutory increase may be modified by subsequent legislation), or (B) the inclusion or exclusion of Tax Expenses pursuant to the terms of Proposition 13. Notwithstanding anything to the contrary set forth in this Lease, only Landlord may institute proceedings to reduce Tax Expenses and the filing of any such proceeding by Tenant without Landlord's consent shall constitute an event of default by Tenant under this Lease. Notwithstanding the foregoing,

Landlord shall not be obligated to file any application or institute any proceeding seeking a reduction in Tax Expenses. Notwithstanding the foregoing, upon a reassessment of the Building and/or the Project pursuant to the terms of Proposition 13 (a "**Reassessment**") occurring after the Base Year which results in a decrease in Tax Expenses, the component of Tax Expenses for the Base Year which is attributable to the assessed value of the Building and/or the Project under Proposition 13 prior to the Reassessment (without taking into account any Proposition 8 reductions) (the "**Base Year Prop 13 Taxes** ") shall be reduced, if at all, for the purposes of comparison to all subsequent Expense Years (commencing with the Expense Year in which the Reassessment takes place) to an amount equal to the real estate taxes based upon such Reassessment, and if thereafter, in connection with a subsequent Reassessment, the assessed value of the Building and/or the Project under Proposition 13 shall increase, the current Base Year Prop 13 Taxes shall be increased for purposes of comparison to all subsequent Expense Years (commencing with the Expense Year in which the Reassessment takes place) to an amount equal to the lesser of the original Base Year Prop 13 Taxes and an amount equal to the real estate taxes based upon such Reassessment.

4.2.9 "**Capital Expenses**" shall mean all cost of capital repair, improvements or expenditures incurred by Landlord in connection with the Project (A) which are intended to effect economies in the operation, cleaning or maintenance of the Project, or any portion thereof, (B) that are required to comply with present or anticipated conservation programs, (C) which are replacements or modifications of nonstructural items located in the Common Areas required to keep the Common Areas in good order or condition, or (D) that are required under any governmental law or regulation. In no event shall Capital Expenses include any costs incurred by Landlord prior to or during the Base Year.

4.2.10 "**Tenant's Share**" shall mean the percentage set forth in Section 6 of the Summary. Tenant's Share was calculated by multiplying the number of rentable square feet of the Premises, as set forth in Section 2.2 of the Summary, by 100, and dividing the product by the total number of rentable square feet in the office area of the Building.

4.3 **Allocation of Direct Expenses**.

4.3.1 **Method of Allocation** . The parties acknowledge that the Building is a part of a multi-building project and that the costs and expenses incurred in connection with the Project (*i.e.*, the Direct Expenses) should be shared between the tenants of the Building and the tenants of the other buildings in the Project. Accordingly, as set forth in Section 4.2 above, Direct Expenses (which consists of Operating Expenses and Tax Expenses) are determined annually for the Project as a whole, and a portion of the Direct Expenses, which portion shall be determined by Landlord on an equitable basis, shall be allocated to the tenants of the Building (as opposed to the tenants of any other buildings in the Project) and such portion shall be the Building Direct Expenses for purposes of this Lease. Such portion of Direct Expenses allocated to the tenants of the Building shall include all Direct Expenses attributable solely to the Building and an equitable portion of the Direct Expenses attributable to the Project as a whole.

4.3.2 **Cost Pools**. Landlord shall have the right, from time to time, to equitably allocate some or all of the Direct Expenses for the Project among different portions or occupants of the Project (the "**Cost Pools**"), in Landlord's discretion. Such Cost Pools may include, but

shall not be limited to, the office space tenants of a building of the Project or of the Project, and the retail space tenants of a building of the Project or of the Project. The Direct Expenses allocable to each such Cost Pool shall be allocated to such Cost Pool and charged to the tenants within such Cost Pool in an equitable manner.

4.4 **Calculation and Payment of Direct Expenses**. If for any Expense Year ending or commencing within the Lease Term, Tenant's Share of Building Direct Expenses for such Expense Year exceeds Tenant's Share of Building Direct Expenses applicable to the Base Year, then Tenant shall pay to Landlord, in the manner set forth in Section 4.4.1, below, and as Additional Rent, an amount equal to the excess (the " **Excess**").

4.4.1 **Statement of Actual Building Direct Expenses and Payment by Tenant** . Landlord shall endeavor to give to Tenant following the end of each Expense Year, a statement (the " **Statement**") which shall state the Building Direct Expenses incurred or accrued for such preceding Expense Year, and which shall indicate the amount of the Excess. Upon receipt of the Statement for each Expense Year commencing or ending during the Lease Term, if an Excess is present, Tenant shall pay, with its next installment of Base Rent due or within thirty (30) days, whichever is earlier, the full amount of the Excess for such Expense Year, less the amounts, if any, paid during such Expense Year as "Estimated Excess," as that term is defined in Section 4.4.2, below. If the amounts paid by Tenant during an Expense Year as Estimated Excess exceed the Excess for such Expense Year, then such difference shall be reimbursed by Landlord to Tenant, provided that any such reimbursement, at Landlord's option, may be credited against the Additional Rent next coming due under this Lease unless the Lease Term has expired, in which event Landlord shall refund the appropriate amount to Tenant. The failure of Landlord to timely furnish the Statement for any Expense Year shall not prejudice Landlord or Tenant from enforcing its rights under this Article 4. Even though the Lease Term has expired and Tenant has vacated the Premises, when the final determination is made of Tenant's Share of Building Direct Expenses for the Expense Year in which this Lease terminates, if an Excess is present, Tenant shall immediately pay to Landlord such amount. The provisions of this Section 4.4.1 shall survive the expiration or earlier termination of the Lease Term.

4.4.2 **Statement of Estimated Building Direct Expenses**. In addition, Landlord shall endeavor to give Tenant a yearly expense estimate statement (the "**Estimate Statement**") which shall set forth Landlord's reasonable estimate (the "**Estimate**") of what the total amount of Building Direct Expenses for the then-current Expense Year shall be and the estimated excess (the "**Estimated Excess**") as calculated by comparing the Building Direct Expenses for such Expense Year, which shall be based upon the Estimate, to the amount of Building Direct Expenses for the Base Year. The failure of Landlord to timely furnish the Estimate Statement for any Expense Year shall not preclude Landlord from enforcing its rights to collect any Estimated Excess under this Article 4, nor shall Landlord be prohibited from revising any Estimate Statement or Estimated Excess theretofore delivered to the extent necessary. Thereafter, Tenant shall pay, with its next installment of Base Rent due, a fraction of the Estimated Excess for the then-current Expense Year (reduced by any amounts paid pursuant to the last sentence of this Section 4.4.2). Such fraction shall have as its numerator the number of months which have elapsed in such current Expense Year, including the month of such payment, and twelve (12) as its denominator. Until a new Estimate Statement is furnished (which Landlord shall have the right to deliver to Tenant at any time), Tenant shall pay monthly, with

the monthly Base Rent installments, an amount equal to one-twelfth (1/12) of the total Estimated Excess set forth in the previous Estimate Statement delivered by Landlord to Tenant.

4.5 **Taxes and Other Charges for Which Tenant Is Directly Responsible** .

4.5.1 Tenant shall be liable for and shall pay thirty (30) days before delinquency, taxes levied against Tenant's equipment, furniture, fixtures and any other personal property located in or about the Premises. If any such taxes on Tenant's equipment, furniture, fixtures and any other personal property are levied against Landlord or Landlord's property or if the assessed value of Landlord's property is increased by the inclusion therein of a value placed upon such equipment, furniture, fixtures or any other personal property and if Landlord pays the taxes based upon such increased assessment, which Landlord shall have the right to do regardless of the validity thereof but only under proper protest if requested by Tenant, Tenant shall upon demand repay to Landlord the taxes so levied against Landlord or the proportion of such taxes resulting from such increase in the assessment, as the case may be.

4.5.2 If the tenant improvements in the Premises, whether installed and/or paid for by Landlord or Tenant and whether or not affixed to the real property so as to become a part thereof, are assessed for real property tax purposes at a valuation higher than the valuation at which tenant improvements conforming to Landlord's "building standard" in other space in the Building are assessed, then the Tax Expenses levied against Landlord or the property by reason of such excess assessed valuation shall be deemed to be taxes levied against personal property of Tenant and shall be governed by the provisions of Section 4.5.1, above.

4.5.3 Notwithstanding any contrary provision herein, Tenant shall pay prior to delinquency any (i) rent tax or sales tax, service tax, transfer tax or value added tax, business tax or any other applicable tax on the rent or services herein or otherwise respecting this Lease, (ii) taxes assessed upon or with respect to the possession, leasing, operation, management, maintenance, alteration, repair, use or occupancy by Tenant of the Premises or any portion of the Project, including the Project parking facility; or (iii) taxes assessed upon this transaction or any document to which Tenant is a party creating or transferring an interest or an estate in the Premises.

4.6 **Calculation and Payment of Capital Expenses** . Notwithstanding any provision to the contrary contained in this Lease, Tenant shall pay to Landlord, on a monthly basis. as Additional Rent and in addition to Tenant's Share of Building Direct Expenses, an amount equal to Tenant's Share of all Capital Expenses incurred by Landlord for any Expense Year following the Base Year; provided, however, any such Capital Expenses shall be amortized (including interest on the unamortized cost at an annual interest rate determined by Landlord) over its useful life as Landlord shall reasonably determine in accordance with sound real estate management and accounting principles and consistent with Landlord's past practices, and Tenant shall only be obligated to pay Tenant's Share of such amortized amount; provided further, however, if Landlord reasonably concludes on the basis of engineering estimates that a particular capital expenditure will effect savings in Operating Expenses, including, without limitation, energy related costs, and that such projected savings will, on an annual basis ("**Projected Annual Savings**"), exceed the annual amortization therefor, then and in such event the amount of amortization for such capital expenditure shall be increased to an amount equal to the Projected

Annual Savings; and in such circumstance, the increased amortization (in the amount of the Projected Annual Savings) shall be made for such period of time as it would take to fully amortize the cost of the item in question, together with interest thereon at the interest rate as aforesaid in equal monthly payments, each in the amount of 1/12th of the Projected Annual Savings, with such payment to be applied first to interest and the balance to principal. The amount of Capital Expenses incurred by Landlord, as well as Tenant's Share of such Capital Expenses, shall be set forth on each Statement and each Estimate Statement delivered by Landlord Tenant and Tenant shall pay Tenant's Share of such Capital Expenses at the same time and in the same manner as Tenant shall pay Tenant's Share of Building Direct Expenses.

4.7 **Landlord's Books and Records**. Notwithstanding anything to the contrary contained in this Lease, if, within ninety (90) days after receipt of a Statement by Tenant, Tenant (i) reasonably disputes any amounts set forth in any Statement described above in this Article 4, and (ii) is not then in default under this Lease, then Tenant shall have the right to cause Landlord's general ledger of accounts with respect to such disputed Statement only to be audited by a nationally recognized firm of certified public accountants reasonably approved by Landlord, at no cost or expense to Landlord, which has prior experience in the review of financial statements and which shall not have provided primary accounting services to Tenant or any other tenant in the Project within the immediately preceding five (5) year period and which shall not be retained by Tenant on a contingency fee basis; provided, however, Tenant shall not have the right to perform any such audit more than one (1) time for any Expense Year during the Lease Term. Any audit conducted by or on behalf of Tenant shall be completed in a diligent manner and timely manner and shall be performed at Landlord's office during Landlord's normal business hours and in a manner so as to minimize interference with Landlord's business operations. Landlord shall have no obligation and Tenant shall have no right to make photocopies of any of Landlord's ledgers, invoices or other items. Tenant agrees to keep, and to cause Tenant's accountant and its employees to keep, all information revealed by any audit of Landlord's books and records strictly confidential and not to disclose any such information or permit any such information to be disclosed to anyone other than Landlord, unless compelled to do so by a court of law, and Tenant and its accountant shall sign a confidentiality agreement reflecting such confidentiality. Tenant's audit shall be limited to an on-site review of Landlord's general ledger of accounts and supporting documentation. If after such audit, Landlord and Tenant dispute the results of such audit, at Tenant's request, a certified public accounting firm selected by Landlord, and approved by Tenant, shall, at Tenant's cost, conduct an audit of the relevant Direct Expenses. The amounts payable under this Section 4.7 by Landlord to Tenant or by Tenant to Landlord, as the case may be, will be appropriately adjusted on the basis of such audit. If such audit discloses an overstatement of Direct Expenses in excess of five percent (5%) for such Expense Year, Landlord shall reimburse Tenant for the reasonable cost of both audits (not to exceed $20,000.00); otherwise the cost of such audits shall be borne by Tenant. Tenant agrees that this Section 4.6 shall be the sole method to be used by Tenant to dispute the amount of any Direct Expenses payable by Tenant pursuant to the terms of this Lease, and Tenant hereby waives any other rights at law or in equity relating thereto.

ARTICLE 5

USE OF PREMISES

5.1 **Permitted Use**. Tenant shall use the Premises solely for the Permitted Use set forth in Section 7 of the Summary and Tenant shall not use or permit the Premises or the Project to be used for any other purpose or purposes whatsoever without the prior written consent of Landlord, which may be withheld in Landlord's sole discretion.

5.2 **Prohibited Uses**. Tenant further covenants and agrees that Tenant shall not use, or suffer or permit any person or persons to use, the Premises or any part thereof for any use or purpose contrary to the provisions of the Rules and Regulations set forth in **Exhibit D**, attached hereto, or in violation of the laws of the United States of America, the State of California, or the ordinances, regulations or requirements of the local municipal or county governing body or other lawful authorities having jurisdiction over the Project, including, without limitation, any such laws, ordinances, regulations or requirements relating to hazardous materials or substances, as those terms are defined by applicable laws now or hereafter in effect. In the event of a conflict of the express terms and conditions of this Lease and the terms and conditions of any Rules and Regulations, the terms and conditions of this Lease shall prevail. Tenant shall not do or permit anything to be done in or about the Premises which will in any way damage the reputation of the Project or obstruct or interfere with the rights of other tenants or occupants of the Building, or injure or annoy them or use or allow the Premises to be used for any improper, unlawful or objectionable purpose, nor shall Tenant cause, maintain or permit any nuisance in, on or about the Premises. Tenant shall comply with, and Tenant's rights and obligations under the Lease and Tenant's use of the Premises shall be subject and subordinate to, all recorded easements, covenants, conditions, and restrictions now or hereafter affecting the Project. Tenant shall not cause or permit any "Hazardous Substance," as that term is defined below, to be kept, maintained, used, stored, produced, generated or disposed of (into the sewage or waste disposal system or otherwise) on or in the Premises by Tenant or Tenant's agents, employees, contractors, invitees, assignees or sublessees, without first obtaining Landlord's written consent. Tenant shall immediately notify, and shall direct Tenant's agents, employees contractors, invitees, assignees and sublessees to immediately notify, Landlord of any incident in, on or about the Premises, the Building or the Project that would require the filing of a notice under any federal, state, local or quasi-governmental law (whether under common law, statute or otherwise), ordinance, decree, code, ruling, award, rule, regulation or guidance document now or hereafter enacted or promulgated, as amended from time to time, in any way relating to or regulating any Hazardous Substance. As used herein, "**Hazardous Substance**" means any substance which is toxic, ignitable, reactive, or corrosive and which is regulated by any local government, the State of California, or the United States government. "Hazardous Substance" includes any and all material or substances which are defined as "hazardous waste," "extremely hazardous waste" or a "hazardous substance" pursuant to state, federal or local governmental law. "Hazardous Substance" also includes asbestos, polychlorobiphenyls (*i.e.*, PCB's) and petroleum.

ARTICLE 6

SERVICES AND UTILITIES

6.1 **Standard Tenant Services**. Landlord shall provide the services specified below and on **Exhibit F** attached hereto, on all days (unless otherwise stated below or in **Exhibit F**) during the Lease Term.

6.1.1 Subject to limitations imposed by all governmental rules, regulations and guidelines applicable thereto, Landlord shall provide heating, ventilation and air conditioning ("**HVAC**") when necessary for normal comfort for normal office use in the Premises from 7:00 A.M. to 6:00 P.M. Monday through Friday (collectively, the "**Building Hours**"), except for the date of observation of New Year's Day, Independence Day, Labor Day, Memorial Day, Thanksgiving Day, Christmas Day and, at Landlord's discretion, other locally or nationally recognized holidays (collectively, the "**Holidays**"). Landlord shall provide HVAC to the Premises outside of Building Hours at Tenant's request as set forth in Exhibit F. Tenant shall cooperate fully with Landlord at all times and abide by all reasonable regulations and requirements that Landlord may reasonably prescribe for the proper functioning and protection of the HVAC, electrical, mechanical and plumbing systems.

6.1.2 Landlord shall provide electricity to the Premises (including adequate electrical wiring and facilities for connection to Tenant's lighting fixtures and incidental use equipment) for lighting and power suitable for the Permitted Use as reasonably determined by Landlord, provided that Tenant's electrical usage shall be subject to applicable laws and regulations. Tenant shall bear the cost of replacement of lamps, starters and ballasts for non-Building standard lighting fixtures within the Premises.

6.1.3 Landlord shall provide city water from the regular Building outlets for drinking, lavatory and toilet purposes in the Building Common Areas.

6.1.4 Landlord shall provide nonexclusive, non-attended automatic passenger elevator service during the Building Hours, shall have one elevator available at all other times, including on the Holidays, except in the event of emergency, and shall provide nonexclusive, non-attended automatic passenger escalator service during Building Hours only.

6.1.5 Landlord shall provide nonexclusive freight elevator service subject to scheduling by Landlord.

6.1.6 Landlord shall provide customary weekday janitorial services to the Premises, except the date of observation of the Holidays, in and about the Premises and customary occasional window washing services, each in a manner consistent with other Class "A" office buildings located in the vicinity of the Project.

6.1.7 Subject to applicable laws and the other provisions of this Lease, and except in the event of an emergency, Tenant shall have access to the Building, the Premises and the common areas of the Building, other than common areas requiring access with a Building engineer, twenty-four (24) hours per day, seven (7) days per week, every day of the year; provided, however, that Tenant shall only be permitted to have access to and use of the parking garage, freight elevator, loading dock, mailroom and other limited-access areas of the Building during the normal operating hours of such portions of the Building.

Notwithstanding anything in this Lease to the contrary, if Landlord or any affiliate of Landlord has elected to qualify as a real estate investment trust ("**REIT**"), any service required or permitted to be performed by Landlord pursuant to this Lease, the charge or cost of which may be treated as impermissible tenant service income under the laws governing a REIT, may be performed by a taxable REIT subsidiary that is affiliated with either Landlord or Landlord's property manager, an independent contractor of Landlord or Landlord's property manager (the " **Service Provider**"). If Tenant is subject to a charge under this Lease for any such service, then, at Landlord's direction, Tenant will pay such charge either to Landlord for further payment to the Service Provider or directly to the Service Provider, and, in either case, (i) Landlord will credit such payment against Additional Rent due from Tenant under this Lease for such service, and (ii) such payment to the Service Provider will not relieve Landlord from any obligation under the Lease concerning the provisions of such service.

6.2 **Overstandard Tenant Use**. Tenant shall not, without Landlord's prior written consent, use heat-generating machines, machines other than normal fractional horsepower office machines, or equipment or lighting other than Building standard lights in the Premises, which may affect the temperature otherwise maintained by the air conditioning system or increase the water normally furnished for the Premises by Landlord pursuant to the terms of Section 6.1 of this Lease. If Tenant uses water, electricity, heat or air conditioning in excess of that supplied by Landlord pursuant to Section 6.1 of this Lease (as reasonably determined by Landlord employing industry standard methodology), Tenant shall pay to Landlord, upon billing, the cost of such excess consumption, the cost of the installation, operation, and maintenance of equipment which is installed in order to supply such excess consumption, and the cost of the increased wear and tear on existing equipment caused by such excess consumption; and Landlord may install devices to separately meter (or sub-meter) any increased use and in such event Tenant shall pay the increased cost directly to Landlord, on demand, at the rates charged by the public utility company furnishing the same, including the cost of such additional metering (or sub-metering) devices. In addition, in the event that there is located in the Premises a data center containing high density computing equipment, as defined in the U.S. EPA's Energy Star® rating system ("**Energy Star**"), Landlord may require the installation in accordance with Energy Star of separate metering or check metering equipment, in which event (i) Tenant shall pay the costs of any such meter or check meter directly to Landlord, on demand, including the installation and connectivity thereof, (ii) Tenant shall directly pay to the utility provider all electric consumption on any meter, and (iii) Tenant shall pay to Landlord, as Additional Rent, all electric consumption on any check meter within thirty (30) days after being billed thereof by Landlord, in addition to other electric charges payable by Tenant under the Lease. In the event that Tenant purchases any utility service directly from the provider, Tenant shall promptly provide to Landlord either permission to access Tenant's usage information from the utility service provider or copies of the utility bills for Tenant's usage of such services in a format reasonably acceptable to Landlord. Tenant's use of electricity shall never exceed the capacity of the feeders to the Project or the risers or wiring installation, and subject to the terms of Section 29.32, below, Tenant shall not install or use or permit the installation or use of any computer or electronic data processing equipment in the Premises, without the prior written consent of Landlord. If Tenant desires to use heat, ventilation or air conditioning during hours other than those for which Landlord is obligated to supply such utilities pursuant to the terms of Section 6.1 of this Lease, Tenant shall give Landlord such prior notice, if any, as Landlord shall from time to time establish as appropriate, of Tenant's desired use in order to supply such utilities, and Landlord shall supply

such utilities to Tenant at such hourly cost to Tenant (which shall be treated as Additional Rent) as Landlord shall from time to time establish. Landlord shall have the exclusive right, but not the obligation, to provide any additional services which may be required by Tenant, including, without limitation, locksmithing, lamp replacement, additional janitorial service, and additional repairs and maintenance. If Tenant requests any such additional services, then Tenant shall pay to Landlord the cost of such additional services, including Landlord's standard fee for its involvement with such additional services, promptly upon being billed for same.

6.3 **Interruption of Use**. Tenant agrees that Landlord shall not be liable for damages, by abatement of Rent or otherwise, for failure to furnish or delay in furnishing any service (including telephone and telecommunication services), or for any diminution in the quality or quantity thereof, when such failure or delay or diminution is occasioned, in whole or in part, by breakage, repairs, replacements, or improvements, by any strike, lockout or other labor trouble, by inability to secure electricity, gas, water, or other fuel at the Building or Project after reasonable effort to do so, by any riot or other dangerous condition, emergency, accident or casualty whatsoever, by act or default of Tenant or other parties, or by any other cause beyond Landlord's reasonable control (provided that the foregoing shall not limit Landlord's liability, if any, pursuant to Applicable Law for personal injury and property damage to the extent caused by the gross negligence or willful misconduct of Landlord, its agents, employees or contractors); and such failures or delays or diminution shall never be deemed to constitute an eviction or disturbance of Tenant's use and possession of the Premises or relieve Tenant from paying Rent or performing any of its obligations under this Lease. Furthermore, Landlord shall not be liable under any circumstances for a loss of, or injury to, property or for injury to, or interference with, Tenant's business, including, without limitation, loss of profits, however occurring, through or in connection with or incidental to a failure to furnish any of the services or utilities as set forth in this Article 6.

ARTICLE 7

REPAIRS

Tenant shall, at Tenant's own expense, keep the Premises, including all improvements, fixtures and furnishings therein, and the floor or floors of the Building on which the Premises are located, in good order, repair and condition at all times during the Lease Term. In addition, Tenant shall, at Tenant's own expense, but under the supervision and subject to the prior approval of Landlord, and within any reasonable period of time specified by Landlord, promptly and adequately repair all damage to the Premises and replace or repair all damaged, broken, or worn fixtures and appurtenances, except for damage caused by ordinary wear and tear or beyond the reasonable control of Tenant; provided however, that, Landlord shall have the exclusive right, at Landlord's option, but not the obligation, to make such repairs and replacements, and Tenant shall pay to Landlord the actual and reasonable cost thereof, including Landlord's standard fee generally applicable to the Building for its involvement with such repairs and replacements, promptly upon being billed for same. Landlord may, but shall not be required to, enter the Premises pursuant to Article 27 of this Lease, below, to make such repairs, alterations, improvements or additions to the Premises or to the Project or to any equipment located in the Project as Landlord shall desire or deem necessary or as Landlord may be required to do by governmental or quasi-governmental authority or court order or decree. Tenant hereby waives

any and all rights under and benefits of subsection 1 of Section 1932 and Sections 1941 and 1942 of the California Civil Code or under any similar law, statute, or ordinance now or hereafter in effect.

ARTICLE 8

ADDITIONS AND ALTERATIONS

8.1 **Landlord's Consent to Alterations**. Other than Permitted Alterations (as defined below), Tenant may not make or suffer to be made any improvements, alterations, additions, changes, or repairs (pursuant to Article 7 or otherwise) to the Premises or any mechanical, plumbing or HVAC facilities or systems pertaining to the Premises (collectively, the "**Alterations**") without first procuring the prior written consent of Landlord to such Alterations, which consent shall be requested by Tenant in accordance with the terms and conditions of this Article 8, and which consent shall not be unreasonably withheld by Landlord, provided it shall be deemed reasonable for Landlord to withhold its consent to any Alteration which adversely affects the structural portions or the systems or equipment of the Building or is visible from the exterior of the Building. Landlord may impose, as a condition of its consent to any and all Alterations or repairs of the Premises or about the Premises, such requirements as Landlord in its sole discretion may deem desirable. The construction of the initial improvements to the Premises shall be governed by the terms of the Tenant Work Letter and not the terms of this Article 8. Notwithstanding the foregoing, Tenant shall be permitted to make Alterations following ten (10) business days' notice to Landlord, pursuant to the terms of this Article 8 except that Landlord's prior consent shall not be required, to the extent that such Alterations purely cosmetic in nature (such as painting the interior of the Premises and/or removal or installation of carpeting or other flooring within the Premises), does not require a building permit, and does not exceed $50,000 per Alteration (the "**Cosmetic Alterations**"), and, except as expressly set forth therein to the contrary, the terms of Section 8.2, below, shall not be applicable to such Cosmetic Alterations.

8.2 **Manner of Construction**. Landlord shall have the exclusive right, at Landlord's option, but not the obligation, to make the Alterations at Tenant's sole cost and expense. If Landlord elects to make the Alterations pursuant to the immediately preceding sentence, then Tenant shall retain Landlord to construct such Alterations and Landlord shall hold all applicable construction contracts. Prior to the commencement of construction of any Alterations or repairs, Tenant shall submit to Landlord, for Landlord's review and approval in its reasonable discretion, four (4) copies signed by Tenant of all plans, specifications and working drawings relating thereto. Tenant, at its sole cost and expense, shall retain an architect/space planner selected by Tenant, and reasonably approved by Landlord, to prepare such plans, specifications and working drawings; provided that, Tenant shall also retain the engineering consultants from a list provided by Landlord to prepare all plans and engineering working drawings, if any, relating to the structural, mechanical, electrical, plumbing, HVAC, lifesafety and sprinkler work of the Alterations. Tenant shall be required to include in its contracts with the architect and the engineers a provision which requires ownership of all architectural and engineering drawings to be transferred to Tenant upon the substantial completion of the Alteration and Tenant hereby grants to Landlord a non-exclusive right to use such drawings, including, without limitation, a right to make copies thereof. Tenant shall cause each architect/space planner and engineer

retained by Tenant to follow Landlord's standard construction administration procedures and to utilize the standard specifications and details for the Building, all as promulgated by Landlord from time to time. Tenant and Tenant's architect/space planner shall verify, in the field, the dimensions and conditions as shown on the relevant portions of the "Base Building" plans, and Tenant and Tenant's architect/space planner shall be solely responsible for the same, and Landlord shall have no responsibility in connection therewith. In addition, at Landlord's option, Landlord may submit Tenant's plans, specifications and working drawings to a third-party architect and/or engineer, selected by Landlord, for their review, at Tenant's sole cost and expense. Landlord's review of plans, specifications and working drawings as set forth in this Section 8.2, shall be for its sole purpose and shall not imply Landlord's review of the same, or obligate Landlord to review the same, for quality, design, compliance with applicable building codes or other like matters. Accordingly, notwithstanding that any plans, specifications or working drawings are reviewed by Landlord or its space planner, architect, engineers and consultants, and notwithstanding any advice or assistance which may be rendered to Tenant by Landlord or Landlord's space planner, architect, engineers, and consultants, Landlord shall have no liability whatsoever in connection therewith and shall not be responsible for any omissions or errors contained in the plans, specifications and working drawings for the Alterations, and Tenant's waiver and indemnity set forth in Section 10.1 of this Lease, below, shall specifically apply to the plans, specifications and working drawings for the Alterations. Following Landlord's approval in its reasonable discretion of all plans, specifications and working drawings for the Alterations, a contractor to construct the Alterations shall be selected by Tenant from the list of contractors approved by Landlord. Landlord shall provide to Tenant an itemized statement of costs, as set forth in the proposed contract with such contractor. Tenant shall approve and deliver to Landlord the itemized statement of costs provided to Tenant in accordance with this Section 8.2, and upon receipt of such itemized statement of costs by Landlord, Landlord shall be released by Tenant (i) to retain the contractor who submitted such itemized statement of costs, and (ii) to purchase the items set forth in such itemized statement of costs and to commence the construction relating to such items. Landlord hereby assigns to Tenant all warranties and guaranties by the contractor selected in accordance with this Section 8.2 to construct the Alterations, and Tenant hereby waives all claims against Landlord relating to, or arising out of the construction of, the Alterations. In the event Tenant requests any Alterations in the Premises which require or give rise to governmentally required changes to the "Base Building," as that term is defined below, then Landlord shall, at Tenant's expense, make such changes to the Base Building. As used in this Lease, the "**Base Building**" shall include the structural portions of the Building, and the public restrooms, elevators, exit stairwells and the systems and equipment located in the internal core of the Building on the floor or floors on which the Premises are located. The term "Base Building," as used in this Lease, shall not be deemed to have the same meaning as the term "Base, Shell and Core," as the same is defined in Section 1 of the Tenant Work Letter. In performing the work of any Alterations (including Cosmetic Alterations) for which Tenant is responsible, Tenant shall have the work performed in such manner so as not to obstruct access to the Project or any portion thereof, by any other tenant of the Project, and so as not to obstruct the business of Landlord or other tenants in the Project. With respect to any such Alterations (including Cosmetic Alterations), Tenant shall not use (and upon notice from Landlord shall cease using) contractors, services, workmen, labor, materials or equipment that, in Landlord's reasonable judgment, would disturb labor harmony with the workforce or trades engaged in performing other work, labor or services in or about the Building

or the Common Areas. In addition to Tenant's obligations under Article 9 of this Lease, upon completion of any Alterations, Tenant agrees to cause a Notice of Completion to be recorded in the office of the Recorder of the County in which the Project is located in accordance with Section 3093 of the Civil Code of the State of California or any successor statute, and Tenant shall deliver to the Project construction manager a reproducible copy of the "as built" drawings of the Alterations in CAD format as well as all permits, approvals and other documents issued by any governmental agency in connection with the Alterations.

8.3 **Payment for Improvements**. Tenant shall pay to Landlord, within ten (10) days after being billed for the same, all costs related to the construction of the Alterations, including, without limitation, the following items and costs: (i) all amounts actually paid by Landlord to any architect/space planner, engineer, consultant, contractor, subcontractor, mechanic, materialman or other person, whether retained by Landlord or Tenant, in connection with the Alterations, and all fees incurred by, and the actual cost of documents and materials supplied by, Landlord and Landlord's consultants in connection with the preparation and review of all plans, specifications and working drawings for the Alterations; (ii) all plan check, permit and license fees relating to construction of the Alterations paid by Landlord; (iii) the cost of any changes in the Base Building when such changes are required by any plans, specifications or working drawings for the Alterations (including if such changes are due to the fact that such work is prepared on an unoccupied basis), such cost to include all direct architectural and/or engineering fees and expenses incurred by Landlord in connection therewith; (iv) the cost of any changes to the plans, specifications and working drawings for the Alterations or to the Alterations themselves required by all applicable zoning and building codes and other laws and paid by Landlord; (v) sales and use taxes and Title 24 fees imposed on, assessed against or paid by Landlord; (vi) Landlord's standard supervision fee for its involvement with such Alterations, which supervision fee shall be equal to five percent (5%) of the cost of each such Alteration; and (vii) all other actual and reasonable out-of-pocket costs incurred by Landlord in connection with the construction of the Alterations. Landlord, at its option, may render bills to Tenant in advance of, or during, construction of the Alterations so as to enable Landlord to pay all costs and expenses incurred by Landlord in connection with the Alterations (including, without limitation, costs of the contractor retained to construct the Alterations) without advancing Landlord's own funds. At Landlord's election in its sole and absolute discretion, Tenant shall deliver to Landlord prior to commencement of construction of the Alterations cash in an amount equal to all estimated costs related to the construction of such Alterations, or such lesser amount as Landlord shall specify, to be held by Landlord and disbursed by Landlord for costs related to the construction of the Alterations as such costs are incurred. In the event that, after Tenant's approval of a cost proposal for the Alterations in accordance with Section 8.2, above, any revisions, changes or substitutions shall be made to the plans, specifications and working drawings or the Alterations, any additional costs which arise in connection with such revisions, changes or substitutions or any other additional costs shall be paid by Tenant to Landlord immediately upon Landlord's request. Any surplus funds delivered by Tenant and held by Landlord in connection with the Alterations shall be refunded to Tenant when all costs related to the construction of the Alterations have been paid in full.

8.4 **Construction Insurance**. In the event that any Alterations are made pursuant to this Article 8, prior to the commencement of such Alterations, Tenant shall provide Landlord with certificates of insurance evidencing compliance with the requirements of Section 10.14 of

this Lease, it being understood and agreed that all of such Alterations shall be insured by Tenant pursuant to Article 10 of this Lease immediately upon completion thereof. In addition, Landlord may, in its discretion, require Tenant to obtain a lien and completion bond or some alternate form of security satisfactory to Landlord in an amount sufficient to ensure the lien-free completion of such Alterations and naming Landlord as a co-obligee.

8.5 **Landlord's Property**. All Alterations, improvements, fixtures, equipment and/or appurtenances which may be installed or placed in or about the Premises, from time to time, shall be at the sole cost of Tenant and shall be and become the property of Landlord; provided, however, Landlord may, by written notice to Tenant prior to the end of the Lease Term, or given following any earlier termination of this Lease, require Tenant, at Tenant's expense, to remove any Alterations or improvements and to repair any damage to the Premises and Building caused by such removal and return the affected portion of the Premises to their condition existing prior to the installation of such Alterations or improvements or, at Landlord's election, to a building standard tenant improved condition as determined by Landlord. If Tenant fails to complete such removal and/or to repair any damage caused by the removal of any Alterations or improvements in the Premises and return the affected portion of the Premises to their condition existing prior to the installation of such Alterations or improvements or, if elected by Landlord, to a building standard tenant improved condition as determined by Landlord, prior to the expiration or earlier termination of this Lease, then Rent shall continue to accrue under this Lease in accordance with Article 16, below, after the end of the Lease Term until such work shall be completed, and Landlord shall have the right, but not the obligation, to perform such work and to charge the cost thereof to Tenant. Tenant hereby protects, defends, indemnifies and holds Landlord harmless from any liability, cost, obligation, expense or claim of lien, including but not limited to, court costs and reasonable attorneys' fees, in any manner relating to the installation, placement, removal or financing of any such Alterations, improvements, fixtures and/or equipment in, on or about the Premises, which obligations of Tenant shall survive the expiration or earlier termination of this Lease.

ARTICLE 9

COVENANT AGAINST LIENS

Tenant shall keep the Project and Premises free from any liens or encumbrances arising out of the work performed, materials furnished or obligations incurred by or on behalf of Tenant, and shall protect, defend, indemnify and hold Landlord harmless from and against any claims, liabilities, judgments or costs (including, without limitation, reasonable attorneys' fees and costs) arising out of same or in connection therewith. Tenant shall give Landlord notice at least twenty (20) days prior to the commencement of any work on the Premises which may give rise to a lien on the Premises or Building (or such additional time as may be necessary under applicable laws) to afford Landlord the opportunity of posting and recording appropriate notices of non-responsibility. Tenant shall remove any such lien or encumbrance by bond or otherwise within five (5) days after notice by Landlord, and if Tenant shall fail to do so, Landlord may pay the amount necessary to remove such lien or encumbrance, without being responsible for investigating the validity thereof. The amount so paid shall be deemed Additional Rent under this Lease payable upon demand, without limitation as to other remedies available to Landlord under this Lease. Nothing contained in this Lease shall authorize Tenant to do any act which

shall subject Landlord's title to the Building or Premises to any liens or encumbrances whether claimed by operation of law or express or implied contract. Any claim to a lien or encumbrance upon the Building or Premises arising in connection with any such work or respecting the Premises not performed by or at the request of Landlord shall be null and void, or at Landlord's option shall attach only against Tenant's interest in the Premises and shall in all respects be subordinate to Landlord's title to the Project, Building and Premises.

ARTICLE 10

TENANT'S INDEMNITY AND INSURANCE

10.1 **Tenant's Indemnity**.

10.1.1 **Indemnity**. To the maximum extent permitted by law, Tenant waives any right to contribution against the "Landlord Parties," as that term is defined in Section 10.13, below, and agrees to indemnify and save harmless the Landlord Parties from and against all claims of whatever nature arising from or claimed to have arisen from (i) any act, omission or negligence of the "Tenant Parties," as that term is defined in Section 10.13, below; (ii) any accident, injury or damage whatsoever caused to any person, or to the property of any person, occurring in or about the Premises from the earlier of (A) the date on which any Tenant Party first enters the Premises for any reason or (B) the Lease Commencement Date, and thereafter throughout and until the end of the Lease Term and after the end of the Lease Term for as long as Tenant or anyone acting by, through or under Tenant is in occupancy of the Premises or any portion thereof; (iii) any accident, injury or damage whatsoever occurring outside the Premises but within the Project, where such accident, injury or damage results, or is claimed to have resulted, from any act, omission or negligence on the part of any of the Tenant Parties; or (iv) any breach of this Lease by Tenant. Tenant shall pay such indemnified amounts as they are incurred by the Landlord Parties. This indemnification shall not be construed to deny or reduce any other rights or obligations of indemnity that a Landlord Party may have under this Lease or the common law. Notwithstanding anything contained herein to the contrary, Tenant shall not be obligated to indemnify a Landlord Party for any claims to the extent that such Landlord Party's damages in fact result from such Landlord Party's gross negligence or willful misconduct.

10.1.2 **Breach**. In the event that Tenant breaches any of its indemnity obligations hereunder or under any other contractual or common law indemnity: (i) Tenant shall pay to the Landlord Parties all liabilities, loss, cost, or expense (including attorney's fees) incurred as a result of said breach, and the reasonable value of time expended by the Landlord Parties as a result of said breach; and (ii) the Landlord Parties may deduct and offset from any amounts due to Tenant under this Lease any amounts owed by Tenant pursuant to this section.

10.1.3 **No limitation**. The indemnification obligations under this Section shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for Tenant or any subtenant or other occupant of the Premises under workers' compensation acts, disability benefit acts, or other employee benefit acts. Tenant waives any immunity from or limitation on its indemnity or contribution liability to the Landlord Parties based upon such acts.

10.1.4 **Subtenants and other occupants**. Tenant shall require its subtenants and other occupants of the Premises to provide similar indemnities to the Landlord Parties in a form acceptable to Landlord.

10.1.5 **Survival**. The terms of this section shall survive any termination or expiration of this Lease.

10.1.6 **Costs**. The foregoing indemnity and hold harmless agreement shall include indemnity for all costs, expenses and liabilities (including, without limitation, attorneys' fees and disbursements) incurred by the Landlord Parties in connection with any such claim or any action or proceeding brought thereon, and the defense thereof. In addition, in the event that any action or proceeding shall be brought against one or more Landlord Parties by reason of any such claim, Tenant, upon request from the Landlord Party, shall resist and defend such action or proceeding on behalf of the Landlord Party by counsel appointed by Tenant's insurer (if such claim is covered by insurance without reservation) or otherwise by counsel reasonably satisfactory to the Landlord Party. The Landlord Parties shall not be bound by any compromise or settlement of any such claim, action or proceeding without the prior written consent of such Landlord Parties.

10.2 **Tenant's Risk**. Tenant agrees to use and occupy the Premises, and to use such other portions of the Building and the Project as Tenant is given the right to use by this Lease at Tenant's own risk. The Landlord Parties shall not be liable to the Tenant Parties for any damage, injury, loss, compensation, or claim (including, but not limited to, claims for the interruption of or loss to a Tenant Party's business) based on, arising out of or resulting from any cause whatsoever, including, but not limited to, repairs to any portion of the Premises or the Building or the Project, any fire, robbery, theft, mysterious disappearance, or any other crime or casualty, the actions of any other tenants of the Building or of any other person or persons, or any leakage in any part or portion of the Premises or the Building or the Project, or from water, rain or snow that may leak into, or flow from any part of the Premises or the Building or the Project, or from drains, pipes or plumbing fixtures in the Building or the Project. Any goods, property or personal effects stored or placed in or about the Premises shall be at the sole risk of the Tenant Party, and neither the Landlord Parties nor their insurers shall in any manner be held responsible therefor. The Landlord Parties shall not be responsible or liable to a Tenant Party, or to those claiming by, through or under a Tenant Party, for any loss or damage that may be occasioned by or through the acts or omissions of persons occupying adjoining premises or any part of the premises adjacent to or connecting with the Premises or any part of the Building or otherwise. Notwithstanding the foregoing, the Landlord Parties shall not be released from liability for any injury, loss, damages or liability to the extent arising from any gross negligence or willful misconduct of the Landlord Parties on or about the Premises; provided, however, in no event shall the Landlord Parties have any liability to a Tenant Party based on any loss with respect to or interruption in the operation of Tenant's business. The provisions of this section shall be applicable until the expiration or earlier termination of the Lease Term, and during such further period as Tenant may use or be in occupancy of any part of the Premises or of the Building.

10.3 **Tenant's Commercial General Liability Insurance**. Tenant agrees to maintain in full force on or before the earlier of (i) the date on which any Tenant Party first enters the Premises for any reason or (ii) the Lease Commencement Date throughout the Lease Term of

this Lease, and thereafter, so long as Tenant is in occupancy of any part of the Premises, a policy of commercial general liability insurance, on an occurrence basis, issued on a form at least as broad as Insurance Services Office ("ISO") Commercial General Liability Coverage "occurrence" form CG 00 01 10 01 or another ISO Commercial General Liability "occurrence" form providing equivalent coverage. Such insurance shall include contractual liability coverage, specifically covering but not limited to the indemnification obligations undertaken by Tenant in this Lease. The minimum limits of liability of such insurance shall be $5,000,000.00 per occurrence. In addition, in the event Tenant hosts a function in the Premises, Tenant agrees to obtain, and cause any persons or parties providing services for such function to obtain, the appropriate insurance coverages as determined by Landlord (including liquor liability coverage, if applicable) and provide Landlord with evidence of the same.

10.4 **Tenant's Property Insurance**. Tenant shall maintain at all times during the Lease Term, and during such earlier time as Tenant may be performing work in or to the Premises or have property, fixtures, furniture, equipment, machinery, goods, supplies, wares or merchandise on the Premises, and continuing thereafter so long as Tenant is in occupancy of any part of the Premises, business interruption insurance and (insurance against loss or damage covered by the so-called “Special Risk” type insurance coverage with respect to (i) Tenant’s property, fixtures, furniture, equipment, machinery, goods, supplies, wares and merchandise, and (ii) the "Tenant Improvements," as that term is defined in the Tenant Work Letter, and any other improvements which exist in the Premises as of the Lease Commencement Date (excluding the Base Building) (the "**Original Improvements**"), and all alterations, improvements and other modifications made by or on behalf of the Tenant in the Premises, and (iii) other property of Tenant located at the Premises (collectively “**Tenant’s Property** ”). The business interruption insurance required by this section shall be in minimum amounts typically carried by prudent tenants engaged in similar operations, but in no event shall be in an amount less than the Base Rent then in effect during any Lease Year, plus any Additional Rent due and payable for the immediately preceding Lease Year. The “Special Risk” insurance required by this section shall be in an amount at least equal to the full replacement cost of Tenant’s Property. In addition, during such time as Tenant is performing work in or to the Premises, Tenant, at Tenant’s expense, shall also maintain, or shall cause its contractor(s) to maintain, builder’s risk insurance for the full insurable value of such work. Landlord and such additional persons or entities as Landlord may reasonably request shall be named as loss payees on the policy or policies required by this section. In the event of loss or damage covered by the “Special Risk” insurance required by this section, the responsibilities for repairing or restoring the loss or damage shall be determined in accordance with Article 11 of this Lease, below. To the extent that Landlord is obligated to pay for the repair or restoration of the loss or damage covered by the policy, Landlord shall be paid the proceeds of the “Special Risk” insurance covering the loss or damage. To the extent Tenant is obligated to pay for the repair or restoration of the loss or damage, covered by the policy, Tenant shall be paid the proceeds of the “Special Risk” insurance covering the loss or damage. If both Landlord and Tenant are obligated to pay for the repair or restoration of the loss or damage covered by the policy, the insurance proceeds shall be paid to each of them in the pro rata proportion of their obligations to repair or restore the loss or damage. If the loss or damage is not repaired or restored (for example, if the Lease is terminated pursuant to Section 11.2 of this Lease, below), the insurance proceeds shall be paid to Landlord and Tenant in the pro rata proportion of their relative contributions to the cost of the leasehold improvements covered by the policy.

10.5 **Tenant's Other Insurance**. Throughout the Lease Term, Tenant shall obtain and maintain (1) comprehensive automobile liability insurance (covering any automobiles owned or operated by Tenant at the Project) issued on a form at least as broad as ISO Business Auto Coverage form CA 00 01 07 97 or other form providing equivalent coverage; (2) worker's compensation insurance or participation in a monopolistic state workers' compensation fund; and (3) employer's liability insurance or (in a monopolistic state) Stop Gap Liability insurance. Such automobile liability insurance shall be in an amount not less than One Million Dollars ($1,000,000) for each accident. Such worker's compensation insurance shall carry minimum limits as defined by the law of the jurisdiction in which the Premises are located (as the same may be amended from time to time). Such employer's liability insurance shall be in an amount not less than One Million Dollars ($1,000,000) for each accident, One Million Dollars ($1,000,000) disease-policy limit, and One Million Dollars ($1,000,000) disease-each employee.

10.6 **Requirements For Insurance**. All insurance required to be maintained by Tenant pursuant to this Lease shall be maintained with responsible companies that are admitted to do business, and are in good standing, in the jurisdiction in which the Premises are located and that have a rating of at least "A" and are within a financial size category of not less than "Class X" in the most current Best's Key Rating Guide or such similar rating as may be reasonably selected by Landlord. All such insurance shall: (1) be acceptable in form and content to Landlord; and (2) be primary and noncontributory. In addition, Tenant shall promptly notify Landlord in the event of any cancellation, failure to renew, reduction of amount of insurance, or change in coverage of any such policy. No such policy shall contain any self-insured retention greater than $25,000.00. Any deductibles and such self-insured retentions shall be deemed to be "insurance" for purposes of the waiver in Section 10.13 of this Lease, below. Landlord reserves the right from time to time to require Tenant to obtain higher minimum amounts of insurance based on such limits as are customarily carried with respect to the Comparable Buildings. The minimum amounts of insurance required by this Lease shall not be reduced by the payment of claims or for any other reason. In the event Tenant shall fail to obtain or maintain any insurance meeting the requirements of this Article, or to deliver such policies or certificates as required by this Article, Landlord may, at its option, on five (5) days' notice to Tenant, procure such policies for the account of Tenant, and the cost thereof shall be paid to Landlord within five (5) days after delivery to Tenant of bills therefor.

10.7 **Additional Insureds**. The commercial general liability and auto insurance carried by Tenant pursuant to this Lease, and any additional liability insurance carried by Tenant pursuant to Section 10.3 of this Lease, above, shall name Landlord, Landlord's managing agent, and such other persons as Landlord may reasonably request from time to time as additional insureds with respect to liability arising out of or related to this Lease or the operations of Tenant (collectively "**Additional Insureds**"). Such insurance shall provide primary coverage without contribution from any other insurance carried by or for the benefit of Landlord, Landlord's managing agent, or other Additional Insureds. Such insurance shall also waive any right of subrogation against each Additional Insured.

10.8 **Certificates Of Insurance**. On or before the earlier of (i) the date on which any Tenant Party first enters the Premises for any reason or (ii) the Lease Commencement Date, Tenant shall furnish Landlord with certificates evidencing the insurance coverage required by this Lease, and renewal certificates shall be furnished to Landlord within five (5) days following

the expiration date of each policy for which a certificate was furnished. (Acceptable forms of such certificates for liability and property insurance, respectively, are attached hereto as **Exhibit G**.) In jurisdictions requiring mandatory participation in a monopolistic state workers' compensation fund, the insurance certificate requirements for the coverage required for workers' compensation will be satisfied by a letter from the appropriate state agency confirming participation in accordance with statutory requirements. Such current participation letters required by this Section shall be provided every six (6) months for the duration of this Lease. Failure by the Tenant to provide the certificates or letters required by this Section shall not be deemed to be a waiver of the requirements in this Section. Upon request by Landlord, a true and complete copy of any insurance policy required by this Lease shall be delivered to Landlord within ten (10) days following Landlord's request.

10.9 **Subtenants And Other Occupants**. Tenant shall require its subtenants and other occupants of the Premises to provide written documentation evidencing the obligation of such subtenant or other occupant to indemnify the Landlord Parties to the same extent that Tenant is required to indemnify the Landlord Parties pursuant to Section 10.1 of this Lease, above, and to maintain insurance that meets the requirements of this Article, and otherwise to comply with the requirements of this Article. Tenant shall require all such subtenants and occupants to supply certificates of insurance evidencing that the insurance requirements of this Article have been met and shall forward such certificates to Landlord on or before the earlier of (i) the date on which the subtenant or other occupant or any of their respective direct or indirect partners, officers, shareholders, directors, members, trustees, beneficiaries, servants, employees, principals, contractors, licensees, agents, invitees or representatives first enters the Premises or (ii) the commencement of the sublease. Tenant shall be responsible for identifying and remedying any deficiencies in such certificates or policy provisions.

10.10 **No Violation Of Building Policies**. Tenant shall not commit or permit any violation of the policies of fire, boiler, sprinkler, water damage or other insurance covering the Project and/or the fixtures, equipment and property therein carried by Landlord, or do or permit anything to be done, or keep or permit anything to be kept, in the Premises, which in case of any of the foregoing (i) would result in termination of any such policies, (ii) would adversely affect Landlord's right of recovery under any of such policies, or (iii) would result in reputable and independent insurance companies refusing to insure the Project or the property of Landlord in amounts reasonably satisfactory to Landlord.

10.11 **Tenant To Pay Premium Increases**. If, because of anything done, caused or permitted to be done, or omitted by Tenant (or its subtenant or other occupants of the Premises), the rates for liability, fire, boiler, sprinkler, water damage or other insurance on the Project or on the property and equipment of Landlord or any other tenant or subtenant in the Building shall be higher than they otherwise would be, Tenant shall reimburse Landlord and/or the other tenants and subtenants in the Building for the additional insurance premiums thereafter paid by Landlord or by any of the other tenants and subtenants in the Building which shall have been charged because of the aforesaid reasons, such reimbursement to be made from time to time on Landlord's demand.

10.12 **Landlord's Insurance**.

10.12.1 **Required insurance**. Landlord shall maintain insurance against loss or damage with respect to the Building on an "Special Risk" type insurance form, with customary exceptions, subject to such deductibles and self-insured retentions as Landlord may determine, in an amount equal to at least the replacement value of the Building. The cost of such insurance shall be treated as a part of Operating Expenses. Such insurance shall be maintained with an insurance company selected by Landlord. Payment for losses thereunder shall be made solely to Landlord.

10.12.2 **Optional insurance**. Landlord may maintain such additional insurance with respect to the Building and the Project, including, without limitation, earthquake insurance, terrorism insurance, flood insurance, liability insurance and/or rent insurance, as Landlord may in its sole discretion elect. Landlord may also maintain such other insurance as may from time to time be required by a "Mortgagee," as that term is defined in Section 18.2 of this Lease, below. The cost of all such additional insurance shall also be part of the Operating Expenses.

10.12.3 **Blanket and self-insurance**. Any or all of Landlord's insurance may be provided by blanket coverage maintained by Landlord or any affiliate of Landlord under its insurance program for its portfolio of properties, or by Landlord or any affiliate of Landlord under a program of self-insurance, and in such event Operating Expenses shall include the portion of the reasonable cost of blanket insurance or self-insurance that is allocated to the Building.

10.12.4 **No obligation**. Landlord shall not be obligated to insure, and shall not assume any liability of risk of loss for, Tenant's Property, including any such property or work of tenant's subtenants or occupants. Landlord will also have no obligation to carry insurance against, nor be responsible for, any loss suffered by Tenant, subtenants or other occupants due to interruption of Tenant's or any subtenant's or occupant's business.

10.13 **Waiver Of Subrogation**. The parties hereto waive and release any and all rights of recovery against the other, and agree not to seek to recover from the other or to make any claim against the other, and in the case of Landlord, against all Tenant Parties, and in the case of Tenant, against all Landlord Parties, for any loss or damage incurred by the waiving/releasing party to the extent such loss or damage is insured under any insurance policy required by this Lease or which would have been so insured had the party carried the insurance it was required to carry hereunder. Tenant shall obtain from its subtenants and other occupants of the Premises a similar waiver and release of claims against any or all of Tenant or Landlord. The insurance policies required by this Lease shall contain no provision that would invalidate or restrict the parties' waiver and release of the rights of recovery in this section. The parties hereto covenant that no insurer shall hold any right of subrogation against the parties hereto by virtue of such insurance policy.

The term "**Landlord Party**" or "**Landlord Parties**" shall mean Landlord, any affiliate of Landlord, Landlord's managing agents for the Building, each Mortgagee, each ground lessor, and each of their respective direct or indirect partners, officers, shareholders, directors,

members, trustees, beneficiaries, servants, employees, principals, contractors, licensees, agents or representatives. For the purposes of this Lease, the term "**Tenant Party**" or "**Tenant Parties**" shall mean Tenant, any affiliate of Tenant, any permitted subtenant or any other permitted occupant of the Premises, and each of their respective direct or indirect partners, officers, shareholders, directors, members, trustees, beneficiaries, servants, employees, principals, contractors, licensees, agents, invitees or representatives.

10.14 **Tenant's Work**. During such times as Tenant is performing work or having work or services performed in or to the Premises, Tenant shall require its contractors, and their subcontractors of all tiers, to obtain and maintain commercial general liability, automobile, workers compensation, employer's liability, builder's risk, and equipment/property insurance in such amounts and on such terms as are customarily required of such contractors and subcontractors on similar projects. The amounts and terms of all such insurance are subject to Landlord's written approval, which approval shall not be unreasonably withheld. The commercial general liability and auto insurance carried by Tenant's contractors and their subcontractors of all tiers pursuant to this section shall name Landlord, Landlord's managing agent, and such other Persons as Landlord may reasonably request from time to time as additional insureds with respect to liability arising out of or related to their work or services (collectively, "**Additional Insureds**"). Such insurance shall provide primary coverage without contribution from any other insurance carried by or for the benefit of Landlord, Landlord's managing agent, or other Additional Insureds. Such insurance shall also waive any right of subrogation against each Additional Insured. Tenant shall obtain and submit to Landlord, prior to the earlier of (i) the entry onto the Premises by such contractors or subcontractors or (ii) commencement of the work or services, certificates of insurance evidencing compliance with the requirements of this section.

ARTICLE 11

DAMAGE AND DESTRUCTION

11.1 **Repair of Damage to Premises by Landlord**. Tenant shall promptly notify Landlord of any damage to the Premises resulting from fire or any other casualty. If the Premises or any Common Areas necessary to Tenant's use of or access to the Premises shall be damaged by fire or other casualty, Landlord shall promptly and diligently, subject to reasonable delays for insurance adjustment or other matters beyond Landlord's reasonable control, and subject to all other terms of this Article 11, restore the Base Building and such Common Areas. Such restoration shall be to substantially the same condition of the Base Building and the Common Areas prior to the casualty, except for modifications required by zoning and building codes and other laws or by the holder of a mortgage on the Building or Project or any other modifications to the Common Areas deemed desirable by Landlord, provided that access to the Premises and any common restrooms serving the Premises shall not be materially impaired. Upon the occurrence of any damage to the Premises, upon notice (the "**Landlord Repair Notice**") to Tenant from Landlord, Tenant shall assign to Landlord (or to any party designated by Landlord) all insurance proceeds payable to Tenant under Tenant's insurance required under item (ii) of Section 10.4 of this Lease, and Landlord shall repair any injury or damage to the Tenant Improvements and the Original Improvements installed in the Premises and shall return such Tenant Improvements and Original Improvements to their original condition; provided that if the cost of such repair by Landlord exceeds the amount of insurance proceeds received by Landlord

from Tenant's insurance carrier, as assigned by Tenant, the cost of such repairs shall be paid by Tenant to Landlord prior to Landlord's commencement of repair of the damage. In the event that Landlord does not deliver the Landlord Repair Notice within sixty (60) days following the date the casualty becomes known to Landlord, Tenant shall, at its sole cost and expense, repair any injury or damage to the Tenant Improvements and the Original Improvements installed in the Premises and shall return such Tenant Improvements and Original Improvements to their original condition. Whether or not Landlord delivers a Landlord Repair Notice, prior to the commencement of construction, Tenant shall submit to Landlord, for Landlord's review and approval, all plans, specifications and working drawings relating thereto, and Tenant shall select the contractors to perform such improvement work subject to Landlord's reasonable approval. Landlord shall not be liable for any inconvenience or annoyance to Tenant or its visitors, or injury to Tenant's business resulting in any way from such damage or the repair thereof; provided, however, if such fire or other casualty shall have damaged the Premises or a portion thereof or Common Areas necessary to Tenant's occupancy, then Landlord shall allow Tenant a proportionate abatement of Rent during the time and to the extent and in the proportion that the Premises or such portion thereof are unfit for occupancy for the purposes permitted under this Lease, and are not occupied by Tenant as a result thereof, provided that such abatement of Rent shall be allowed only to the extent Landlord is reimbursed from the proceeds of rental interruption insurance purchased by Landlord as part of Operating Expenses; provided further, however, if the damage or destruction is due to the negligence or willful misconduct of Tenant or any of its agents, employees, contractors, invitees or guests, then Tenant shall be responsible for any reasonable, applicable insurance deductible (which shall be payable to Landlord upon demand, but which may be paid under protest) and there shall be no rent abatement. In the event that Landlord shall not deliver the Landlord Repair Notice, Tenant's right to rent abatement pursuant to the preceding sentence shall terminate as of the date which is reasonably determined by Landlord to be the date Tenant should have completed repairs to the Premises assuming Tenant used reasonable due diligence in connection therewith.

11.2 **Landlord's Option to Repair**. Notwithstanding the terms of Section 11.1 of this Lease, Landlord may elect not to rebuild and/or restore the Premises, Building and/or Project, and instead terminate this Lease, by notifying Tenant in writing of such termination within sixty (60) days after the date of discovery of the damage, such notice to include a termination date giving Tenant sixty (60) days to vacate the Premises, but Landlord may so elect only if the Building or Project shall be damaged by fire or other casualty or cause, whether or not the Premises are affected, and one or more of the following conditions is present: (i) in Landlord's reasonable judgment, repairs cannot reasonably be completed within two hundred ten (210) days after the date of discovery of the damage (when such repairs are made without the payment of overtime or other premiums); (ii) the holder of any mortgage on the Building or Project or ground lessor with respect to the Building or Project shall require that the insurance proceeds or any portion thereof be used to retire the mortgage debt, or shall terminate the ground lease, as the case may be; (iii) the damage is not fully covered by Landlord's insurance policies or that portion of the proceeds from Landlord's insurance policies allocable to the Building or the Project, as the case may be; (iv) Landlord decides to rebuild the Building or Common Areas so that they will be substantially different structurally or architecturally; (v) the damage occurs during the last twelve (12) months of the Lease Term; or (vi) any owner of any other portion of the Project, other than Landlord, does not intend to repair the damage to such portion of the Project; provided, however, that if such fire or other casualty shall have damaged the Premises or a portion thereof or

Common Areas necessary to Tenant's occupancy and as a result of such damage the Premises are unfit for occupancy, and provided that Landlord does not elect to terminate this Lease pursuant to Landlord's termination right as provided above, and either (a) the repairs cannot, in the reasonable opinion of Landlord's contractor, be completed within two hundred ten (210) days after being commenced, or (b) the damage occurs during the last twelve months of the Lease Term and will reasonably require in excess of ninety (90) days to repair, Tenant may elect, no earlier than sixty (60) days after the date of the damage and not later than ninety (90) days after the date of such damage, to terminate this Lease by written notice to Landlord effective as of the date specified in the notice, which date shall not be less than thirty (30) days nor more than sixty (60) days after the date such notice is given by Tenant.

11.3 **Waiver of Statutory Provisions**. The provisions of this Lease, including this Article 11, constitute an express agreement between Landlord and Tenant with respect to any and all damage to, or destruction of, all or any part of the Premises, the Building or the Project, and any statute or regulation of the State of California, including, without limitation, Sections 1932(2) and 1933(4) of the California Civil Code, with respect to any rights or obligations concerning damage or destruction in the absence of an express agreement between the parties, and any other statute or regulation, now or hereafter in effect, shall have no application to this Lease or any damage or destruction to all or any part of the Premises, the Building or the Project.

ARTICLE 12

NONWAIVER

No provision of this Lease shall be deemed waived by either party hereto unless expressly waived in a writing signed thereby. The waiver by either party hereto of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of any subsequent breach of same or any other term, covenant or condition herein contained. The subsequent acceptance of Rent hereunder by Landlord shall not be deemed to be a waiver of any preceding breach by Tenant of any term, covenant or condition of this Lease, other than the failure of Tenant to pay the particular Rent so accepted, regardless of Landlord's knowledge of such preceding breach at the time of acceptance of such Rent. No acceptance of a lesser amount than the Rent herein stipulated shall be deemed a waiver of Landlord's right to receive the full amount due, nor shall any endorsement or statement on any check or payment or any letter accompanying such check or payment be deemed an accord and satisfaction, and Landlord may accept such check or payment without prejudice to Landlord's right to recover the full amount due. No receipt of monies by Landlord from Tenant after the termination of this Lease shall in any way alter the length of the Lease Term or of Tenant's right of possession hereunder, or after the giving of any notice shall reinstate, continue or extend the Lease Term or affect any notice given Tenant prior to the receipt of such monies, it being agreed that after the service of notice or the commencement of a suit, or after final judgment for possession of the Premises, Landlord may receive and collect any Rent due, and the payment of said Rent shall not waive or affect said notice, suit or judgment. No payment of Rent by Tenant after a breach by Landlord shall be deemed a waiver of any breach by Landlord.

ARTICLE 13

CONDEMNATION

If the whole or any part of the Premises, Building or Project shall be taken by power of eminent domain or condemned by any competent authority for any public or quasi-public use or purpose, or if any adjacent property or street shall be so taken or condemned, or reconfigured or vacated by such authority in such manner as to require the use, reconstruction or remodeling of any part of the Premises, Building or Project, or if Landlord shall grant a deed or other instrument in lieu of such taking by eminent domain or condemnation, Landlord shall have the option to terminate this Lease effective as of the date possession is required to be surrendered to the authority. If more than twenty-five percent (25%) of the rentable square feet of the Premises is taken, or if all reasonable access to the Premises is substantially impaired, in each case for a period in excess of one hundred twenty (120) days, Tenant shall have the option to terminate this Lease effective as of the date possession is required to be surrendered to the authority. Tenant shall not because of such taking assert any claim against Landlord or the authority for any compensation because of such taking and Landlord shall be entitled to the entire award or payment in connection therewith, except that Tenant shall have the right to file any separate claim available to Tenant for any taking of Tenant's personal property and fixtures belonging to Tenant and removable by Tenant upon expiration of the Lease Term pursuant to the terms of this Lease, and for moving expenses, so long as such claim is payable separately to Tenant. All Rent shall be apportioned as of the date of such termination. If any part of the Premises shall be taken, and this Lease shall not be so terminated, the Rent shall be proportionately abated. Tenant hereby waives any and all rights it might otherwise have pursuant to Section 1265.130 of the California Code of Civil Procedure. Notwithstanding anything to the contrary contained in this Article 13, in the event of a temporary taking of all or any portion of the Premises for a period of one hundred eighty (180) days or less, then this Lease shall not terminate but the Base Rent and the Additional Rent shall be abated for the period of such taking in proportion to the ratio that the amount of rentable square feet of the Premises taken bears to the total rentable square feet of the Premises. Landlord shall be entitled to receive the entire award made in connection with any such temporary taking.

ARTICLE 14

ASSIGNMENT AND SUBLETTING

14.1 **Transfers**. Tenant shall not, without the prior written consent of Landlord, assign, mortgage, pledge, hypothecate, encumber, or permit any lien to attach to, or otherwise transfer, this Lease or any interest hereunder, permit any assignment, or other transfer of this Lease or any interest hereunder by operation of law, sublet the Premises or any part thereof, or enter into any license or concession agreements or otherwise permit the occupancy or use of the Premises or any part thereof by any persons other than Tenant and its employees and contractors (all of the foregoing are hereinafter sometimes referred to individually as a "**Transfer,**" and, collectively, as "**Transfers**" and any person to whom any Transfer is made or sought to be made is hereinafter sometimes referred to as a "**Transferee**"). If Tenant desires Landlord's consent to any Transfer, Tenant shall notify Landlord in writing, which notice (the "**Transfer Notice**") shall include (i) the proposed effective date of the Transfer, which shall not be less than thirty (30)

days nor more than one hundred eighty (180) days after the date of delivery of the Transfer Notice, (ii) a description of the portion of the Premises to be transferred (the "**Subject Space**"), (iii) all of the terms of the proposed Transfer and the consideration therefor, including calculation of the "Transfer Premium", as that term is defined in Section 14.3 below, in connection with such Transfer, the name and address of the proposed Transferee, and a copy of all existing executed and/or proposed documentation pertaining to the proposed Transfer, including all existing operative documents to be executed to evidence such Transfer or the agreements incidental or related to such Transfer, provided that Landlord shall have the right to require Tenant to utilize Landlord's standard Transfer documents in connection with the documentation of such Transfer, (iv) current financial statements of the proposed Transferee certified by an officer, partner or owner thereof, business credit and personal references and history of the proposed Transferee and any other information required by Landlord which will enable Landlord to determine the financial responsibility, character, and reputation of the proposed Transferee, nature of such Transferee's business and proposed use of the Subject Space, and (v) an executed estoppel certificate from Tenant in the form attached hereto as **Exhibit E**. Any Transfer made without Landlord's prior written consent shall, at Landlord's option, be null, void and of no effect, and shall, at Landlord's option, constitute a default by Tenant under this Lease. Whether or not Landlord consents to any proposed Transfer, Tenant shall pay Landlord's review and processing fees, as well as any reasonable professional fees (including, without limitation, attorneys', accountants', architects', engineers' and consultants' fees) incurred by Landlord, within thirty (30) days after written request by Landlord.

14.2 **Landlord's Consent**. Landlord shall not unreasonably withhold its consent to any proposed Transfer of the Subject Space to the Transferee on the terms specified in the Transfer Notice. Without limitation as to other reasonable grounds for withholding consent, the parties hereby agree that it shall be reasonable under this Lease and under any applicable law for Landlord to withhold consent to any proposed Transfer where one or more of the following apply:

14.2.1 The Transferee is of a character or reputation or engaged in a business which is not consistent with the quality of the Building or the Project, or would be a significantly less prestigious occupant of the Building than Tenant;

14.2.2 The Transferee intends to use the Subject Space for purposes which are not permitted under this Lease;

14.2.3 The Transferee is either a governmental agency or instrumentality thereof;

14.2.4 The Transferee is not a party of reasonable financial worth and/or financial stability in light of the responsibilities to be undertaken in connection with the Transfer on the date consent is requested;

14.2.5 The proposed Transfer would cause a violation of another lease for space in the Project, or would give an occupant of the Project a right to cancel its lease;

14.2.6 Either the proposed Transferee, or any person or entity which directly or indirectly, controls, is controlled by, or is under common control with, the proposed Transferee,

(i) occupies space in the Project at the time of the request for consent, or (ii) is negotiating or has negotiated with Landlord to lease space in the Project, or (iii) Landlord is currently meeting with (or has previously met with) the proposed Transferee to tour space in the Project;

14.2.7 In Landlord's reasonable judgment, the use of the Premises by the proposed Transferee would not be comparable to the types of office use by other tenants in the Project, would entail any alterations which would lessen the value of the tenant improvements in the Premises, would result in more than a reasonable density of occupants per square foot of the Premises, would increase the burden on elevators or other Building systems or equipment over the burden thereon prior to the proposed Transfer, or would require increased services by Landlord;

14.2.8 Intentionally Omitted;

14.2.9 The proposed Transfer is of less than the entire Premises; or

14.2.10 Any part of the rent payable under the proposed Transfer shall be based in whole or in part on the income or profits derived from the Subject Space or if any proposed Transfer shall potentially have any adverse effect on the real estate investment trust qualification requirements applicable to Landlord and its affiliates.

If Landlord consents to any Transfer pursuant to the terms of this Section 14.2 (and does not exercise any recapture rights Landlord may have under Section 14.4 of this Lease), Tenant may within six (6) months after Landlord's consent, but not later than the expiration of said six-month period, enter into such Transfer of the Premises or portion thereof, upon substantially the same terms and conditions as are set forth in the Transfer Notice furnished by Tenant to Landlord pursuant to Section 14.1 of this Lease, provided that if there are any changes in the terms and conditions from those specified in the Transfer Notice (i) such that Landlord would initially have been entitled to refuse its consent to such Transfer under this Section 14.2, or (ii) which would cause the proposed Transfer to be more favorable to the Transferee than the terms set forth in Tenant's original Transfer Notice, Tenant shall again submit the Transfer to Landlord for its approval and other action under this Article 14 (including Landlord's right of recapture, if any, under Section 14.4 of this Lease). Notwithstanding anything to the contrary in this Lease, if Tenant or any proposed Transferee claims that Landlord has unreasonably withheld or delayed its consent under Section 14.2 or otherwise has breached or acted unreasonably under this Article 14, their sole remedies shall be a declaratory judgment and an injunction for the relief sought, and Tenant hereby waives the provisions of Section 1995.310 of the California Civil Code, or any successor statute, and all other remedies, including, without limitation, any right at law or equity to terminate this Lease, on its own behalf and, to the extent permitted under all applicable laws, on behalf of the proposed Transferee. Tenant shall indemnify, defend and hold harmless Landlord from any and all liability, losses, claims, damages, costs, expenses, causes of action and proceedings involving any third party or parties (including without limitation Tenant's proposed subtenant or assignee) who claim they were damaged by Landlord's wrongful withholding or conditioning of Landlord's consent.

14.3 **Transfer Premium**. If Landlord consents to a Transfer, as a condition thereto which the parties hereby agree is reasonable, Tenant shall pay to Landlord seventy-five percent

(75%) of any "Transfer Premium," as that term is defined in this Section 14.3, received by Tenant from such Transferee. "**Transfer Premium**" shall mean all rent, additional rent or other consideration payable by such Transferee in connection with the Transfer in excess of the Rent and Additional Rent payable by Tenant under this Lease during the term of the Transfer on a per rentable square foot basis if less than all of the Premises is transferred, after deducting the reasonable expenses incurred by Tenant for (i) any changes, alterations and improvements to the Premises in connection with the Transfer, (ii) any free base rent reasonably provided to the Transferee in connection with the Transfer (provided that such free rent shall be deducted only to the extent the same is included in the calculation of total consideration payable by such Transferee), and (iii) any brokerage commissions in connection with the Transfer and (iv) legal fees reasonably incurred in connection with the Transfer (collectively, "**Tenant's Subleasing Costs**"). "Transfer Premium" shall also include, but not be limited to, key money, bonus money or other cash consideration paid by Transferee to Tenant in connection with such Transfer, and any payment in excess of fair market value for services rendered by Tenant to Transferee or for assets, fixtures, inventory, equipment, or furniture transferred by Tenant to Transferee in connection with such Transfer. Landlord shall make a determination of the amount of Landlord's applicable share of the Transfer Premium on a monthly basis as rent or other consideration is paid by Transferee to Tenant under the Transfer. For purposes of calculating the Transfer Premium on a monthly basis, Tenant's Subleasing Costs shall be deemed to be expended by Tenant in equal monthly amounts over the entire term of the Transfer.

14.4 **Landlord's Option as to Subject Space**. Notwithstanding anything to the contrary contained in this Article 14, Landlord shall have the option, by giving written notice to Tenant within thirty (30) days after receipt of any Transfer Notice, to (i) recapture the Subject Space, or (ii) take an assignment or sublease of the Subject Space from Tenant; provided, however, Landlord shall have no right to recapture space with respect to (A) a sublease for less than the remainder of the Lease Term (for purposes hereof, a sublease shall be deemed to be for the remainder of the Lease Term if, assuming all sublease renewal or extension rights are exercised, such sublease shall expire during the final twelve (12) months of the Lease Term), or (B) an assignment or sublease pursuant to the terms of Section 14.8, below. Such recapture or sublease or assignment notice, shall cancel and terminate this Lease, or create a sublease or assignment, as the case may be, with respect to the Subject Space as of the date stated in the Transfer Notice as the effective date of the proposed Transfer. In the event of a recapture by Landlord, if this Lease shall be canceled with respect to less than the entire Premises, then (i) the Rent reserved herein shall be prorated on the basis of the number of rentable square feet retained by Tenant in proportion to the number of rentable square feet contained in the Premises; (ii) this Lease as so amended shall continue thereafter in full force and effect, and upon request of either party, the parties shall execute written confirmation of the same; and (iii) Landlord shall construct or cause to be constructed a demising wall separating that portion of the Premises recaptured by Landlord from that portion of the Premises retained by Tenant; provided that, Tenant hereby agrees that, notwithstanding Tenant's occupancy of its retained portion of the Premises during the construction of such demising wall by Landlord, Landlord shall be permitted to construct such demising wall during normal business hours, without any obligation to pay overtime or other premiums, and the construction of such demising wall by Landlord shall in no way constitute a constructive eviction of Tenant nor entitle Tenant to any abatement of Rent, and Landlord shall have no responsibility or for any reason be liable to Tenant for any direct or indirect injury to or interference with Tenant's business arising from the construction of such

demising wall, nor shall Tenant be entitled to any compensation or damages from Landlord for loss of the use of the whole or any part of its retained portion of the Premises or of Tenant's personal property or improvements resulting from the construction of such demising wall, or for any inconvenience or annoyance occasioned by the construction of such demising wall; and provided further that, Tenant shall be responsible for, and shall pay to Landlord promptly upon being billed therefor, fifty percent (50%) of all costs related to the construction of such demising wall, including Landlord's standard fee for its involvement with such demising wall. If Landlord declines, or fails to elect in a timely manner, to recapture, sublease or take an assignment of the Subject Space under this Section 14.4, then, provided Landlord has consented to the proposed Transfer, Tenant shall be entitled to proceed to transfer the Subject Space to the proposed Transferee, subject to provisions of this Article 14.

14.5 **Effect of Transfer**. If Landlord consents to a Transfer, then (i) the terms and conditions of this Lease shall in no way be deemed to have been waived or modified; (ii) such consent shall not be deemed consent to any further Transfer by either Tenant or a Transferee; (iii) Tenant shall deliver to Landlord, promptly after execution, an original executed copy of all documentation pertaining to the Transfer in form and content reasonably acceptable to Landlord, including, without limitation, at Landlord's option, a "Transfer Agreement," as that term is defined in this Section 14.5, below; (iv) Tenant shall furnish upon Landlord's request a complete statement, certified by an independent certified public accountant, or Tenant's chief financial officer, setting forth in detail the computation of any Transfer Premium Tenant has derived and shall derive from such Transfer; and (v) no Transfer relating to this Lease or agreement entered into with respect thereto, whether with or without Landlord's consent, shall relieve Tenant or any guarantor of the Lease from any liability under this Lease, including, without limitation, in connection with the Subject Space, and, in the event of a Transfer of Tenant's entire interest in this Lease, the liability of Tenant and such Transferee shall be joint and several. Landlord or its authorized representatives shall have the right at all reasonable times to audit the books, records and papers of Tenant relating to any Transfer, and shall have the right to make copies thereof. If the Transfer Premium respecting any Transfer shall be found understated, Tenant shall, within thirty (30) days after demand, pay the deficiency, and if understated by more than two percent (2%), Tenant shall pay Landlord's costs of such audit. Notwithstanding anything to the contrary contained in this Article 14, Landlord, at its option in its sole and absolute discretion, may require, as a condition to the validity of any Transfer, that both Tenant and such Transferee enter into a separate written agreement directly with Landlord (a "**Transfer Agreement**"), which Transfer Agreement, among other things, shall create privity of contract between Landlord and such Transferee with respect to the provisions of this Article 14, and shall contain such terms and provisions as Landlord may reasonably require, including, without limitation, the following: (A) such Transferee's agreement to be bound by all the obligations of Tenant under this Lease (including, but not limited to, Tenant's obligation to pay Rent), provided that, in the event of a Transfer of less than the entire Premises, the obligations to which such Transferee shall agree to be so bound shall be prorated on a basis of the number of rentable square feet of the Subject Space in proportion to the number of square feet in the Premises; (B) such Transferee's acknowledgment of, and agreement that such Transfer shall be subordinate and subject to, Landlord's rights under Section 19.3 of this Lease; and (C) Tenant's and such Transferee's recognition of and agreement to be bound by all the terms and provisions of this Article 14, including, but not limited to, any such terms and provisions which Landlord, at its option, requires to be expressly set forth in such Transfer Agreement. Upon the occurrence of any

default by Transferee under such Transfer, Landlord shall have the right, at its option, but not the obligation, on behalf of Tenant, to pursue any or all of the remedies available to Tenant under such Transfer or at law or in equity (all of which remedies shall be distinct, separate and cumulative).

14.6 **Occurrence of Default**. Any Transfer hereunder, whether or not such Transferee shall have executed a Transfer Agreement, shall be subordinate and subject to the provisions of this Lease, and if this Lease shall be terminated during the term of any Transfer, then Landlord shall have all of the rights set forth in Section 19.3 of this Lease with respect to such Transfer. In addition, if Tenant shall be in default under this Lease, then Landlord is hereby irrevocably authorized, as Tenant's agent and attorney-in-fact, to direct any Transferee to make all payments under or in connection with a Transfer directly to Landlord (which payments Landlord shall apply towards Tenant's obligations under this Lease) until such default is cured. Such Transferee shall rely on any representation by Landlord that Tenant is in default hereunder, without any need for confirmation thereof by Tenant. Upon any assignment, the assignee shall assume in writing all obligations and covenants of Tenant thereafter to be performed or observed under this Lease. No collection or acceptance of rent by Landlord from any Transferee shall be deemed a waiver of any provision of this Article 14 or the approval of any Transferee or a release of Tenant from any obligation under this Lease, whether theretofore or thereafter accruing. In no event shall Landlord's enforcement of any provision of this Lease against any Transferee be deemed a waiver of Landlord's right to enforce any term of this Lease against Tenant or any other person. If Tenant's obligations hereunder have been guaranteed, Landlord's consent to any Transfer shall not be effective unless the guarantor also consents to such Transfer.

14.7 **Additional Transfers**. For purposes of this Lease, the term "Transfer" shall also include (i) if Tenant is a partnership or a limited liability company, the withdrawal or change, voluntary, involuntary or by operation of law, of fifty percent (50%) or more of the partners, officers or members, as applicable, or transfer of fifty percent (50%) or more of partnership, ownership or membership interests (as applicable), within a twelve (12)-month period, or the dissolution of the partnership or limited liability company without immediate reconstitution thereof, and (ii) if Tenant is a closely held corporation (*i.e.*, whose stock is not publicly held and not traded through an exchange or over the counter), (A) the dissolution, merger, consolidation or other reorganization of Tenant or (B) the sale or other transfer of an aggregate of fifty percent (50%) or more of the voting shares of Tenant (other than to immediate family members by reason of gift or death, or in connection with a bona fide transaction intended to finance the continuing business and operations of the Tenant), within a twelve (12)-month period, or (C) the sale, mortgage, hypothecation or pledge of an aggregate of fifty percent (50%) or more of the value of the unencumbered assets of Tenant within a twelve (12)-month period.

14.8 **Deemed Consent Transfers**. Notwithstanding anything to the contrary contained in this Lease, an assignment or subletting of all or a portion of the Premises to (A) an affiliate of Tenant (an entity which is controlled by, controls, or is under common control with, Tenant as of the date of this Lease), or (B) an assignment of the Lease to an entity which acquires all or substantially all of the stock or assets of Tenant, shall not be deemed a Transfer requiring Landlord's consent under this Article 14, provided that (i) Tenant notifies Landlord of any such assignment or sublease and promptly supplies Landlord with any documents or information reasonably requested by Landlord regarding such transfer or transferee as set forth above,

(ii) such assignment or sublease is not a subterfuge by Tenant to avoid its obligations under this Lease, it being understood that such Transferee shall thereafter become liable under this Lease, on a joint and several basis, with Tenant, (iii) any transferee under this Section 14.8 shall be of a character and reputation consistent with the quality of the Building, and (iv) with respect to an assignment under sub-item (B), above, such assignee shall have a tangible net worth (not including goodwill as an asset) computed in accordance with generally accepted accounting principles ("**Net Worth**") at least equal to the greater of (1) the Net Worth of Original Tenant on the date of this Lease, and (2) the Net Worth of Tenant on the day immediately preceding the effective date of such assignment or sublease. "**Control**," as used in this Section 14.8, shall mean the ownership, directly or indirectly, of at least fifty-one percent (51%) of the voting securities of, or possession of the right to vote, in the ordinary direction of its affairs, of at least fifty-one percent (51%) of the voting interest in, any person or entity.

ARTICLE 15

SURRENDER OF PREMISES; OWNERSHIP AND REMOVAL OF TRADE FIXTURES

15.1 **Surrender of Premises**. No act or thing done by Landlord or any agent or employee of Landlord during the Lease Term shall be deemed to constitute an acceptance by Landlord of a surrender of the Premises unless such intent is specifically acknowledged in writing by Landlord. The delivery of keys to the Premises to Landlord or any agent or employee of Landlord shall not constitute a surrender of the Premises or effect a termination of this Lease, whether or not the keys are thereafter retained by Landlord, and notwithstanding such delivery Tenant shall be entitled to the return of such keys at any reasonable time upon request until this Lease shall have been properly terminated. The voluntary or other surrender of this Lease by Tenant, whether accepted by Landlord or not, or a mutual termination hereof, shall not work a merger, and at the option of Landlord shall operate as an assignment to Landlord of all subleases or subtenancies affecting the Premises or terminate any or all such sublessees or subtenancies.

15.2 **Removal of Tenant Property by Tenant**. Upon the expiration of the Lease Term, or upon any earlier termination of this Lease, Tenant shall, subject to the provisions of this Article 15, quit and surrender possession of the Premises to Landlord in as good order and condition as when Tenant took possession and as thereafter improved by Landlord and/or Tenant, reasonable wear and tear and repairs which are specifically made the responsibility of Landlord hereunder excepted. Upon such expiration or termination, Tenant shall, without expense to Landlord, remove or cause to be removed from the Premises all debris and rubbish, such items of furniture, equipment, business and trade fixtures, free-standing cabinet work, movable partitions and other articles of personal property owned by Tenant or installed or placed by Tenant at its expense in the Premises, and such similar articles of any other persons claiming under Tenant, as Landlord may, in its sole discretion, require to be removed, and Tenant shall repair at its own expense all damage to the Premises and Building resulting from such removal.

ARTICLE 16

HOLDING OVER

If Tenant holds over after the expiration of the Lease Term or earlier termination thereof, with the express or implied consent of Landlord, such tenancy shall be from month-to-month only, and shall not constitute a renewal hereof or an extension for any further term, and in such case Rent shall be payable at a monthly rate equal to (i) one hundred fifty percent (150%) of the Rent applicable during the last rental period of the Lease Term under this Lease for the first (1st) month of such holdover, and (ii) two hundred percent (200%) thereafter . Such month-to-month tenancy shall be subject to every other applicable term, covenant and agreement contained herein. Nothing contained in this Article 16 shall be construed as consent by Landlord to any holding over by Tenant, and Landlord expressly reserves the right to require Tenant to surrender possession of the Premises to Landlord as provided in this Lease upon the expiration or other termination of this Lease. The provisions of this Article 16 shall not be deemed to limit or constitute a waiver of any other rights or remedies of Landlord provided herein or at law. If Tenant fails to surrender the Premises upon the termination or expiration of this Lease, in addition to any other liabilities to Landlord accruing therefrom, Tenant shall protect, defend, indemnify and hold Landlord harmless from all loss, costs (including reasonable attorneys' fees) and liability resulting from such failure, including, without limiting the generality of the foregoing, any claims made by any succeeding tenant founded upon such failure to surrender and any lost profits to Landlord resulting therefrom.

ARTICLE 17

ESTOPPEL CERTIFICATES

Within ten (10) business days following a request in writing by Landlord, Tenant shall execute, acknowledge and deliver to Landlord an estoppel certificate, which, as submitted by Landlord, shall be substantially in the form of **Exhibit E**, attached hereto (or such other form as may be required by any prospective mortgagee or purchaser of the Project, or any portion thereof), indicating therein any exceptions thereto that may exist at that time, and shall also contain any other information reasonably requested by Landlord or Landlord's mortgagee or prospective mortgagee. Any such certificate may be relied upon by any prospective mortgagee or purchaser of all or any portion of the Project. Tenant shall execute and deliver whatever other instruments may be reasonably required for such purposes. At any time during the Lease Term, Landlord may require Tenant to provide Landlord with a current financial statement and financial statements of the two (2) years prior to the current financial statement year. Such statements shall be prepared in accordance with generally accepted accounting principles and, if such is the normal practice of Tenant, shall be audited by an independent certified public accountant. Failure of Tenant to timely execute, acknowledge and deliver such estoppel certificate or other instruments shall constitute an acceptance of the Premises and an acknowledgment by Tenant that statements included in the estoppel certificate are true and correct, without exception. Notwithstanding the foregoing, in the event that (i) stock in the entity which constitutes Tenant under this Lease (as opposed to an entity that "controls" Tenant or is otherwise an "affiliate" of Tenant, as those terms are defined in Section 14.8 of this Lease) is publicly traded on a national stock exchange, and (ii) Tenant has it own, separate and distinct 10K and 10Q filing requirements (as opposed joint or cumulative filings with an entity that controls Tenant or with entities which are otherwise Affiliates of Tenant), then Tenant's obligation to provide Landlord with a copy of its most recent current financial statement shall be deemed satisfied.

ARTICLE 18

MORTGAGE OR GROUND LEASE

18.1 **Subordination**. This Lease shall be subject and subordinate to all present and future ground or underlying leases of the Building or Project and to the lien of any mortgage, trust deed or other encumbrances now or hereafter in force against the Building or Project or any part thereof, if any, and to all renewals, extensions, modifications, consolidations and replacements thereof, and to all advances made or hereafter to be made upon the security of such mortgages or trust deeds, unless the holders of such mortgages, trust deeds or other encumbrances, or the lessors under such ground lease or underlying leases, require in writing that this Lease be superior thereto. Tenant covenants and agrees in the event any proceedings are brought for the foreclosure of any such mortgage or deed in lieu thereof (or if any ground lease is terminated), to attorn, without any deductions or set-offs whatsoever, to the lienholder or purchaser or any successors thereto upon any such foreclosure sale or deed in lieu thereof (or to the ground lessor), if so requested to do so by such purchaser or lienholder or ground lessor, and to recognize such purchaser or lienholder or ground lessor as the lessor under this Lease, provided such lienholder or purchaser or ground lessor shall agree to accept this Lease and not disturb Tenant's occupancy, so long as Tenant timely pays the rent and observes and performs the terms, covenants and conditions of this Lease to be observed and performed by Tenant. Landlord's interest herein may be assigned as security at any time to any lienholder. Tenant shall, within five (5) days of request by Landlord, execute such further instruments or assurances as Landlord may reasonably deem necessary to evidence or confirm the subordination or superiority of this Lease to any such mortgages, trust deeds, ground leases or underlying leases. Tenant waives the provisions of any current or future statute, rule or law which may give or purport to give Tenant any right or election to terminate or otherwise adversely affect this Lease and the obligations of the Tenant hereunder in the event of any foreclosure proceeding or sale.

18.2 **Notice to Lienholder or Ground Lessor**. Notwithstanding anything to the contrary contained in Article 28, below, or elsewhere in this Lease, upon receipt by Tenant of notice from any holder of a mortgage, trust deed or other encumbrance in force against the Building or the Project or any part thereof which includes the Premises or any lessor under a ground lease or underlying lease of the Building or the Project, or from Landlord, which notice sets forth the address of such lienholder or ground lessor, no notice from Tenant to Landlord shall be effective unless and until a copy of the same is given to such lienholder or ground lessor at the appropriate address therefor (as specified in the above-described notice or at such other places as may be designated from time to time in a notice to Tenant in accordance with Article 28, below), and the curing of any of Landlord's defaults by such lienholder or ground lessor within a reasonable period of time after such notice from Tenant (including a reasonable period of time to obtain possession of the Building or the Project, as the case may be, if such lienholder or ground lessor elects to do so) shall be treated as performance by Landlord. For the purposes of this Article 18, the term "mortgage" shall include a mortgage on a leasehold interest of Landlord (but not a mortgage on Tenant's leasehold interest hereunder).

18.3 **Assignment of Rents**. With reference to any assignment by Landlord of Landlord's interest in this Lease, or the Rent payable to Landlord hereunder, conditional in nature or otherwise, which assignment is made to any holder of a mortgage, trust deed or other

encumbrance in force against the Building or the Project or any part thereof which includes the Premises or to any lessor under a ground lease or underlying lease of the Building or the Project, Tenant agrees as follows:

18.3.1 The execution of any such assignment by Landlord, and the acceptance thereof by such lienholder or ground lessor, shall never be treated as an assumption by such lienholder or ground lessor of any of the obligations of Landlord under this Lease, unless such lienholder or ground lessor shall, by notice to Tenant, specifically otherwise elect.

18.3.2 Notwithstanding delivery to Tenant of the notice required by Section 18.3.1, above, such lienholder or ground lessor, respectively, shall be treated as having assumed Landlord's obligations under this Lease only upon such lienholder's foreclosure of any such mortgage, trust deed or other encumbrance, or acceptance of a deed in lieu thereof, and taking of possession of the Building or the Project or applicable portion thereof, or such ground lessor's termination of any such ground lease or underlying leases and assumption of Landlord's position hereunder, as the case may be. In no event shall such lienholder, ground lessor or any other successor to Landlord's interest in this Lease, as the case may be, be liable for any security deposit paid by Tenant to Landlord, unless and until such lienholder, ground lessor or other such successor, respectively, actually has been credited with or has received for its own account as landlord the amount of such security deposit or any portion thereof (in which event the liability of such lienholder, ground lessor or other such successor, as the case may be, shall be limited to the amount actually credited or received).

18.3.3 In no event shall the acquisition of title to the Building and the land upon which the Building is located or the Project or any part thereof which includes the Premises by a purchaser which, simultaneously therewith, leases back to the seller thereof the entire Building or the land upon which the Building is located or the Project or the entirety of that part thereof acquired by such purchaser, as the case may be, be treated as an assumption, by operation of law or otherwise, of Landlord's obligations under this Lease, but Tenant shall look solely to such seller-lessee, or to the successors to or assigns of such seller-lessee's estate, for performance of Landlord's obligations under this Lease. In any such event, this Lease shall be subject and subordinate to the lease to such seller-lessee, and Tenant covenants and agrees in the event the lease to such seller-lessee is terminated to attorn, without any deductions or set-offs whatsoever, to such purchaser-lessor, if so requested to do so by such purchaser-lessor, and to recognize such purchaser-lessor as the lessor under this Lease, provided such purchaser-lessor shall agree to accept this Lease and not disturb Tenant's occupancy, so long as Tenant timely pays the rent and observes and performs the terms, covenants and conditions of this Lease to be observed and performed by Tenant. For all purposes, such seller-lessee, or the successors to or assigns of such seller-lessee's estate, shall be the lessor under this Lease unless and until such seller-lessee's position shall have been assumed by such purchaser-lessor.

ARTICLE 19

DEFAULTS; REMEDIES

19.1 **Events of Default**. The occurrence of any of the following shall constitute a default of this Lease by Tenant:

19.1.1 Any failure by Tenant to pay any Rent or any other charge required to be paid under this Lease, or any part thereof, when due; or

19.1.2 Except where a specific time period is otherwise set forth for Tenant's performance in this Lease, in which event the failure to perform by Tenant within such time period shall be a default by Tenant under this Section 19.1.2, any failure by Tenant to observe or perform any other provision, covenant or condition of this Lease to be observed or performed by Tenant where such failure continues for thirty (30) days after written notice thereof from Landlord to Tenant; provided that if the nature of such default is such that the same cannot reasonably be cured within a thirty (30) day period, Tenant shall not be deemed to be in default if it diligently commences such cure within such period and thereafter diligently proceeds to rectify and cure such default; or

19.1.3 Abandonment or vacation of all or a substantial portion of the Premises by Tenant; or

19.1.4 The failure by Tenant to observe or perform according to the provisions of Articles 5, 10, 14, 17 or 18 of this Lease, or any breach by Tenant of the representations and warranties set forth in Section 29.34 of this Lease, or the failure by Tenant to observe or perform any other provision, covenant or condition of this Lease which failure, because of the character of such provision, covenant or condition, would immediately jeopardize Landlord's interest, where such failure continues for more than two (2) business days after notice from Landlord; or

19.1.5 Tenant's failure to occupy the Premises within thirty (30) business days after the Lease Commencement Date.

The notice periods provided in this Section 19.1 are in lieu of, and not in addition to, any notice periods provided by law.

19.2 **Remedies Upon Default**. Upon the occurrence of any event of default by Tenant, Landlord shall have, in addition to any other remedies available to Landlord at law or in equity (all of which remedies shall be distinct, separate and cumulative), the option to pursue any one or more of the following remedies, each and all of which shall be cumulative and nonexclusive, without any notice or demand whatsoever.

19.2.1 Terminate this Lease, in which event Tenant shall immediately surrender the Premises to Landlord, and if Tenant fails to do so, Landlord may, without prejudice to any other remedy which it may have for possession or arrearages in rent, enter upon and take possession of the Premises and expel or remove Tenant and any other person who may be occupying the Premises or any part thereof, without being liable for prosecution or any claim or damages therefor; and Landlord may recover from Tenant the following:

(i) The worth at the time of award of any unpaid rent which has been earned at the time of such termination; plus

(ii) The worth at the time of award of the amount by which the unpaid rent which would have been earned after termination until the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided; plus

(iii) The worth at the time of award of the amount by which the unpaid rent for the balance of the Lease Term after the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided; plus

(iv) Any other amount necessary to compensate Landlord for all the detriment proximately caused by Tenant's failure to perform its obligations under this Lease or which in the ordinary course of things would be likely to result therefrom, specifically including but not limited to, brokerage commissions and advertising expenses incurred, expenses of remodeling the Premises or any portion thereof for a new tenant, whether for the same or a different use, and any special concessions made to obtain a new tenant; and

(v) At Landlord's election, such other amounts in addition to or in lieu of the foregoing as may be permitted from time to time by applicable law.

The term "rent" as used in this Section 19.2 shall be deemed to be and to mean all sums of every nature required to be paid by Tenant pursuant to the terms of this Lease, whether to Landlord or to others. As used in Sections 19.2.1(i) and 19.2.1(ii), above, the "worth at the time of award" shall be computed by allowing interest at the rate set forth in Article 25 of this Lease, but in no case greater than the maximum amount of such interest permitted by law. As used in Section 19.2.1(iii) above, the "worth at the time of award" shall be computed by discounting such amount at the discount rate of the Federal Reserve Bank of San Francisco at the time of award plus one percent (1%).

19.2.2 Landlord shall have the remedy described in California Civil Code Section 1951.4 (lessor may continue lease in effect after lessee's breach and abandonment and recover rent as it becomes due, if lessee has the right to sublet or assign, subject only to reasonable limitations). Accordingly, if Landlord does not elect to terminate this Lease on account of any default by Tenant, Landlord may, from time to time, without terminating this Lease, enforce all of its rights and remedies under this Lease, including the right to recover all rent as it becomes due.

19.2.3 Landlord shall at all times have the rights and remedies (which shall be cumulative with each other and cumulative and in addition to those rights and remedies available under Sections 19.2.1 and 19.2.2, above, or any law or other provision of this Lease), without prior demand or notice except as required by applicable law, to seek any declaratory, injunctive or other equitable relief, and specifically enforce this Lease, or restrain or enjoin a violation or breach of any provision hereof.

19.3 **Subleases of Tenant**. If Landlord elects to terminate this Lease on account of any default by Tenant, as set forth in this Article 19, then Landlord shall have the right, at Landlord's option in its sole discretion, (i) to terminate any and all assignments, subleases, licenses, concessions or other consensual arrangements for possession entered into by Tenant and affecting the Premises, in which event Landlord shall have the right to repossess such affected portions of the Premises by any lawful means, or (ii) to succeed to Tenant's interest in any or all such assignments, subleases, licenses, concessions or arrangements, in which event Landlord may require any assignees, sublessees, licensees or other parties thereunder to attorn to and recognize Landlord as its assignor, sublessor, licensor, concessionaire or transferor

thereunder. In the event of Landlord's election to succeed to Tenant's interest in any such assignments, subleases, licenses, concessions or arrangements, Tenant shall, as of the date of notice by Landlord of such election, have no further right to or interest in the rent or other consideration receivable thereunder.

19.4 **Efforts to Relet**. No re-entry or repossession, repairs, maintenance, changes, alterations and additions, reletting, appointment of a receiver to protect Landlord's interests hereunder, or any other action or omission by Landlord shall be construed as an election by Landlord to terminate this Lease or Tenant's right to possession, or to accept a surrender of the Premises, nor shall same operate to release Tenant in whole or in part from any of Tenant's obligations hereunder, unless express written notice of such intention is sent by Landlord to Tenant. Tenant hereby irrevocably waives any right otherwise available under any law to redeem or reinstate this Lease.

ARTICLE 20

COVENANT OF QUIET ENJOYMENT

Landlord covenants that Tenant, on paying the Rent, charges for services and other payments herein reserved and on keeping, observing and performing all the other terms, covenants, conditions, provisions and agreements herein contained on the part of Tenant to be kept, observed and performed, shall, during the Lease Term, peaceably and quietly have, hold and enjoy the Premises subject to the terms, covenants, conditions, provisions and agreements hereof without interference by any persons lawfully claiming by or through Landlord. The foregoing covenant is in lieu of any other covenant express or implied.

ARTICLE 21

LETTER OF CREDIT

21.1 **Delivery of Letter of Credit**. Tenant shall deliver to Landlord concurrent with Tenant's execution of this Lease, as protection for the full and faithful performance by Tenant of all of its obligations under this Lease and for all losses and damages Landlord may suffer (or which Landlord reasonably estimates that it may suffer) as a result of any breach or default by Tenant under this Lease, an unconditional, clean, irrevocable negotiable standby letter of credit (the "**L-C**") in the amount set forth in Section 8 of the Summary (the " **L-C Amount**"), in the form attached hereto as **Exhibit H**, payable in the City of San Francisco, California, running in favor of Landlord, drawn on a bank (the "**Bank**") reasonably approved by Landlord and at a minimum having a long term issuer credit rating from Standard and Poor's Professional Rating Service of A or a comparable rating from Moody's Professional Rating Service (the "**Credit Rating Threshold**"), and otherwise conforming in all respects to the requirements of this Article 21, including, without limitation, all of the requirements of Section 21.2 below, all as set forth more particularly hereinbelow. Tenant shall pay all expenses, points and/or fees incurred by Tenant in obtaining and maintaining the L/C. In the event of an assignment by Tenant of its interest in the Lease (and irrespective of whether Landlord's consent is required for such assignment), the acceptance of any replacement or substitute letter of credit by Landlord from the assignee shall be subject to Landlord's prior written approval, in Landlord's reasonable

discretion, and the attorney's fees incurred by Landlord in connection with such determination shall be payable by Tenant to Landlord within ten (10) days of billing.

21.2 **In General**. The L-C shall be "callable" at sight, permit partial draws and multiple presentations and drawings, and be otherwise subject to the Uniform Customs and Practices for Documentary Credits (1993-Rev), International Chamber of Commerce Publication #500, or the International Standby Practices-ISP 98, International Chamber of Commerce Publication #590. Tenant further covenants and warrants as follows:

21.2.1 **Landlord Right to Transfer**. The L-C shall provide that Landlord, its successors and assigns, may, at any time and without notice to Tenant and without first obtaining Tenant's consent thereto, transfer (one or more times) all or any portion of its interest in and to the L-C to another party, person or entity, regardless of whether or not such transfer is separate from or as a part of the assignment by Landlord of its rights and interests in and to this Lease. In the event of a transfer of Landlord's interest in the Building, Landlord shall transfer the L-C, in whole or in part, to the transferee and thereupon Landlord shall, without any further agreement between the parties, be released by Tenant from all liability therefor, and it is agreed that the provisions hereof shall apply to every transfer or assignment of the whole or any portion of said L-C to a new landlord. In connection with any such transfer of the L-C by Landlord, Tenant shall, at Tenant's sole cost and expense, execute and submit to the Bank such applications, documents and instruments as may be necessary to effectuate such transfer, and Tenant shall be responsible for paying the Bank's transfer and processing fees in connection therewith.

21.2.2 **No Assignment by Tenant**. Tenant shall neither assign nor encumber the L-C or any part thereof. Neither Landlord nor its successors or assigns will be bound by any assignment, encumbrance, attempted assignment or attempted encumbrance by Tenant in violation of this Section.

21.2.3 **Replenishment.** If, as a result of any drawing by Landlord on the L-C pursuant to its rights set forth in Section 21.3 below, the amount of the L-C shall be less than the L-C Amount, Tenant shall, within five (5) days thereafter, provide Landlord with (i) an amendment to the L-C restoring such L-C to the L-C Amount or (ii) additional L-Cs in an amount equal to the deficiency, which additional L-Cs shall comply with all of the provisions of this Article 21, and if Tenant fails to comply with the foregoing, notwithstanding anything to the contrary contained in Section 19.1 above, the same shall constitute an incurable default by Tenant under this Lease (without the need for any additional notice and/or cure period).

21.2.4 **Renewal; Replacement**. If the L-C expires earlier than the date (the " **LC Expiration Date**") that is one hundred twenty (120) days after the expiration of the Lease Term, Tenant shall deliver a new L-C or certificate of renewal or extension to Landlord at least sixty (60) days prior to the expiration of the L-C then held by Landlord, without any action whatsoever on the part of Landlord, which new L-C shall be irrevocable and automatically renewable through the LC Expiration Date upon the same terms as the expiring L-C or such other terms as may be acceptable to Landlord in its sole discretion. In furtherance of the foregoing, Landlord and Tenant agree that the L-C shall contain a so-called "evergreen provision," whereby the L-C will automatically be renewed unless at least sixty (60) days' prior written notice of non-renewal is provided by the issuer to Landlord; provided, however, that the

final expiration date identified in the L-C, beyond which the L-C shall not automatically renew, shall not be earlier than the LC Expiration Date.

21.2.5 **Bank's Financial Condition**. If, at any time during the Lease Term, the Bank's long term credit rating is reduced below the Credit Rating Threshold, or if the financial condition of the Bank changes in any other materially adverse way (either, a "**Bank Credit Threat**"), then Landlord shall have the right to require that Tenant obtain from a different issuer a substitute L-C that complies in all respects with the requirements of this Article 21, and Tenant's failure to obtain such substitute L-C within ten (10) days following Landlord's written demand therefor (with no other notice or cure or grace period being applicable thereto, notwithstanding anything in this Lease to the contrary) shall entitle Landlord, or Landlord's then managing agent, to immediately draw upon the then existing L-C in whole or in part, without notice to Tenant, as more specifically described in Section 21.3 below. Tenant shall be responsible for the payment of any and all costs incurred with the review of any replacement L-C (including without limitation Landlord's reasonable attorneys' fees), which replacement is required pursuant to this Section or is otherwise requested by Tenant.

21.3 **Application of Letter of Credit**. Tenant hereby acknowledges and agrees that Landlord is entering into this Lease in material reliance upon the ability of Landlord to draw upon the L-C as protection for the full and faithful performance by Tenant of all of its obligations under this Lease and for all losses and damages Landlord may suffer (or which Landlord reasonably estimates that it may suffer) as a result of any breach or default by Tenant under this Lease. Landlord, or its then managing agent, shall have the right to draw down an amount up to the face amount of the L-C if any of the following shall have occurred or be applicable: (A) such amount is due to Landlord under the terms and conditions of this Lease, or (B) Tenant has filed a voluntary petition under the U. S. Bankruptcy Code or any state bankruptcy code (collectively, "**Bankruptcy Code**"), or (C) an involuntary petition has been filed against Tenant under the Bankruptcy Code, or (D) the Bank has notified Landlord that the L-C will not be renewed or extended through the LC Expiration Date, or (E) a Bank Credit Threat or Receivership (as such term is defined in Section 21.6.1 below) has occurred and Tenant has failed to comply with the requirements of either Section 21.2.5 above or 21.6 below, as applicable. If Tenant shall breach any provision of this Lease or otherwise be in default hereunder, or if any of the foregoing events identified in Sections 21.3(B) through (E) shall have occurred, Landlord may, but without obligation to do so, and without notice to Tenant, draw upon the L-C, in part or in whole, and the proceeds may be applied by Landlord (i) to cure any breach or default of Tenant and/or to compensate Landlord for any and all damages of any kind or nature sustained or which Landlord reasonably estimates that it will sustain resulting from Tenant's breach or default, (ii) against any Rent payable by Tenant under this Lease that is not paid when due and/or (iii) to pay for all losses and damages that Landlord has suffered or that Landlord reasonably estimates that it will suffer as a result of any breach or default by Tenant under this Lease. The use, application or retention of the L-C, or any portion thereof, by Landlord shall not prevent Landlord from exercising any other right or remedy provided by this Lease or by any applicable law, it being intended that Landlord shall not first be required to proceed against the L-C, and shall not operate as a limitation on any recovery to which Landlord may otherwise be entitled. Tenant agrees not to interfere in any way with payment to Landlord of the proceeds of the L-C, either prior to or following a "draw" by Landlord of any portion of the L-C, regardless of whether any dispute exists between Tenant and Landlord as to Landlord's

right to draw upon the L-C. No condition or term of this Lease shall be deemed to render the L-C conditional to justify the issuer of the L-C in failing to honor a drawing upon such L-C in a timely manner. Tenant agrees and acknowledges that (i) the L-C constitutes a separate and independent contract between Landlord and the Bank, (ii) Tenant is not a third party beneficiary of such contract, (iii) Tenant has no property interest whatsoever in the L-C or the proceeds thereof, and (iv) in the event Tenant becomes a debtor under any chapter of the Bankruptcy Code, neither Tenant, any trustee, nor Tenant's bankruptcy estate shall have any right to restrict or limit Landlord's claim and/or rights to the L-C and/or the proceeds thereof by application of Section 502(b)(6) of the U. S. Bankruptcy Code or otherwise.

21.4 **Letter of Credit not a Security Deposit**. Landlord and Tenant acknowledge and agree that in no event or circumstance shall the L-C or any renewal thereof or any proceeds thereof be (i) deemed to be or treated as a "security deposit" within the meaning of California Civil Code Section 1950.7, (ii) subject to the terms of such Section 1950.7, or (iii) intended to serve as a "security deposit" within the meaning of such Section 1950.7. The parties hereto (A) recite that the L-C is not intended to serve as a security deposit and such Section 1950.7 and any and all other laws, rules and regulations applicable to security deposits in the commercial context ("**Security Deposit Laws**") shall have no applicability or relevancy thereto and (B) waive any and all rights, duties and obligations either party may now or, in the future, will have relating to or arising from the Security Deposit Laws.

21.5 **Proceeds of Draw**. In the event Landlord draws down on the L-C pursuant to Section 21.3(D) or (E) above, the proceeds of the L-C may be held by Landlord and applied by Landlord against any Rent payable by Tenant under this Lease that is not paid when due and/or to pay for all losses and damages that Landlord has suffered or that Landlord reasonably estimates that it will suffer as a result of any breach or default by Tenant under this Lease. Any unused proceeds shall constitute the property of Landlord and need not be segregated from Landlord's other assets. Tenant hereby (i) agrees that (A) Tenant has no property interest whatsoever in the proceeds from any such draw, and (B) such proceeds shall not be deemed to be or treated as a "security deposit" under the Security Deposit Law, and (ii) waives all rights, duties and obligations either party may now or, in the future, will have relating to or arising from the Security Deposit Laws. Landlord agrees that the amount of any proceeds of the L-C received by Landlord, and not (a) applied against any Rent payable by Tenant under this Lease that was not paid when due or (b) used to pay for any losses and/or damages suffered by Landlord (or reasonably estimated by Landlord that it will suffer) as a result of any breach or default by Tenant under this Lease (the "**Unused L-C Proceeds**"), shall be paid by Landlord to Tenant (x) upon receipt by Landlord of a replacement L-C in the full L-C Amount, which replacement L-C shall comply in all respects with the requirements of this Article 21, or (y) within thirty (30) days after the LC Expiration Date; provided, however, that if prior to the LC Expiration Date a voluntary petition is filed by Tenant, or an involuntary petition is filed against Tenant by any of Tenant's creditors, under the Bankruptcy Code, then Landlord shall not be obligated to make such payment in the amount of the Unused L-C Proceeds until either all preference issues relating to payments under this Lease have been resolved in such bankruptcy or reorganization case or such bankruptcy or reorganization case has been dismissed.

21.6 **Bank Placed Into Receivership**.

21.6.1 **Bank Placed Into Receivership**. In the event the Bank is placed into receivership or conservatorship (any such event, a "**Receivership**") by the Federal Deposit Insurance Corporation or any successor or similar entity (the "**FDIC**"), then, effective as of the date such Receivership occurs, the L-C shall be deemed to not meet the requirements of this Article 21, and, within ten (10) days following Landlord's notice to Tenant of such Receivership (the "**LC Replacement Notice**"), Tenant shall (i) replace the L-C with a substitute L-C from a different issuer reasonably acceptable to Landlord and that complies in all respects with the requirements of this Article 21 or (ii), in the event Tenant demonstrates to Landlord that Tenant is reasonably unable to obtain a substitute L-C from a different issuer reasonably acceptable to Landlord and that complies in all respects with the requirements of this Article 21 within the foregoing ten (10) day period, deposit with Landlord cash in the L-C Amount (the " **Interim Cash Deposit**"); provided, however, that, in the case of the foregoing sub-clause (ii), Tenant shall, within sixty (60) days after the LC Replacement Notice, replace the L-C with a substitute L-C from a different issuer reasonably acceptable to Landlord and that complies in all respects with the requirements of this Article 21, and upon Landlord's receipt and acceptance of such replacement L-C, Landlord shall return to Tenant the Interim Cash Deposit, with no obligation on the part of Landlord to pay any interest thereon. If Tenant fails to comply in any respect with the requirements of this Section 21.6.1, then, notwithstanding anything in this Lease to the contrary, Landlord shall have the right to (a) declare Tenant in default of this Lease for which there shall be no notice or grace or cure periods being applicable thereto other than the aforesaid ten (10) day and sixty (60) day periods, (b) if applicable, retain such Interim Cash Deposit until such time as such default is cured by Tenant, which retention shall not constitute a waiver of any right or remedy available to Landlord under the terms of this Lease or at law, and (c) pursue any and all remedies available to it under this Lease and at law, including, without limitation, if Tenant has failed to provide the Interim Cash Deposit, treating any Receivership as a Bank Credit Threat and exercising Landlord's remedies under Section 21.2.5 above, to the extent possible pursuant to then existing FDIC policy. Tenant shall be responsible for the payment of any and all costs incurred with the review of any replacement L-C (including without limitation Landlord's reasonable attorneys' fees), which replacement is required pursuant to this Section or is otherwise requested by Tenant.

21.6.2 **Interim Cash Deposit**. During any period that Landlord remains in possession of the Interim Cash Deposit (any such period, a "**Deposit Period**"), it is understood by the parties that such Interim Cash Deposit shall be held by Landlord as security for the full and faithful performance of Tenant's covenants and obligations under this Lease. The Interim Cash Deposit shall not constitute an advance of any Rent, an advance payment of any other kind, nor a measure of Landlord's damages in case of Tenant's default. If, during any such Deposit Period, Tenant defaults with respect to any provisions of this Lease, including, but not limited to, the provisions relating to the payment of Rent, the removal of property and the repair of resultant damage, then Landlord may but shall not be required to, from time to time, without notice to Tenant and without waiving any other remedy available to Landlord, use the Interim Cash Deposit, or any portion of it, to the extent necessary to cure or remedy such default or failure or to compensate Landlord for all damages sustained by Landlord or which Landlord reasonably estimates that it will sustain resulting from Tenant's default or failure to comply fully and timely with its obligations pursuant to this Lease. Tenant shall immediately pay to Landlord on demand

any amount so applied in order to restore the Interim Cash Deposit to its original amount, and Tenant's failure to immediately do so shall constitute a default under this Lease. In the event Landlord is in possession of the Interim Cash Deposit at the expiration or earlier termination of this Lease, and Tenant is in compliance with the covenants and obligations set forth in this Lease at the time of such expiration or termination, then Landlord shall return to Tenant the Interim Cash Deposit, less any amounts deducted by Landlord to reimburse Landlord for any sums to which Landlord is entitled under the terms of this Lease, within sixty (60) days following both such expiration or termination and Tenant's vacation and surrender of the Premises. Landlord's obligations with respect to the Interim Cash Deposit are those of a debtor and not a trustee. Landlord shall not be required to maintain the Interim Cash Deposit separate and apart from Landlord's general or other funds, and Landlord may commingle the Interim Cash Deposit with any of Landlord's general or other funds. Tenant shall not at any time be entitled to interest on the Interim Cash Deposit. In the event of a transfer of Landlord's interest in the Building, Landlord shall transfer the Interim Cash Deposit, in whole or in part, to the transferee and thereupon Landlord shall, without any further agreement between the parties, be released by Tenant from all liability therefor, and it is agreed that the provisions hereof shall apply to every transfer or assignment of the whole or any portion of said Interim Cash Deposit to a new landlord. Tenant hereby waives the provisions of Section 1950.7 of the California Civil Code, or any successor statute.

21.7 **Reduction of L-C Amount**. Provided that, as of the last day of the thirtieth (30th) full calendar month of the Lease Term (the "**Reduction Date**"), (i) Tenant is not then in breach of or in default under this Lease, (ii) Tenant has not previously been in breach of or in default under this Lease beyond any applicable notice and cure period, and (iii) on or prior to the Reduction Date, Tenant tenders to Landlord a replacement Letter of Credit or a certificate of amendment to the existing Letter of Credit, conforming in all respects to the requirements of this Article 21, then the L-C Amount shall be reduced to $145,750.17. In the event the L-C Amount is reduced pursuant to the foregoing, and provided that Tenant timely tenders the replacement or amended Letter of Credit to Landlord in the form required herein, Landlord shall exchange the Letter of Credit then held by Landlord for the replacement or amended Letter of Credit tendered by Tenant.

ARTICLE 22

INTENTIONALLY OMITTED

ARTICLE 23

SIGNS

23.1 **Full Floors**. Subject to Landlord's prior written approval, in its sole discretion, and provided all signs are in keeping with the quality, design and style of the Building and Project, Tenant, if the Premises comprise an entire floor of the Building, at its sole cost and expense, may install identification signage anywhere in the Premises including in the elevator

lobby of the Premises, provided that such signs must not be visible from the exterior of the Building.

23.2 **Multi-Tenant Floors**. If other tenants occupy space on the floor on which the Premises is located, Tenant's identifying signage (including lobby directory signage on the floor of the Building upon which the Premises is located) shall be provided by Landlord, at Tenant's cost, and such signage shall be comparable to that used by Landlord for other similar floors in the Building and shall comply with Landlord's then-current Building standard signage program.

23.3 **Prohibited Signage and Other Items**. Any signs, notices, logos, pictures, names or advertisements which are installed outside of the Premises (or which can be seen from the exterior of the Premises) and that have not been separately approved by Landlord may be removed without notice by Landlord at the sole expense of Tenant. Tenant may not install any signs on the exterior or roof of the Project or the Common Areas. Any signs, window coverings, or blinds (even if the same are located behind the Landlord-approved window coverings for the Building), or other items visible from the exterior of the Premises or Building, shall be subject to the prior approval of Landlord, in its sole discretion.

23.4 **Building Directory**. Tenant shall have the right, at Tenant cost, to have Tenant's name entered into Landlord's directory in the lobby of the Building.

23.5 **Monument Signage**. Subject to the terms of this Section 23.5, Applicable Laws and all applicable Building rules and regulations, the Original Tenant shall have the non-exclusive right to have a sign ("**Tenant's Sign**") on one (1) tenant strip of the monument sign located front of the Building (the " **Monument**"). The location of Tenant's Sign on the Monument shall be designated by Landlord. Tenant's right to Tenant's Sign shall be subject to all applicable governmental laws, rules, regulations, codes and approvals. Further, Tenant shall be responsible for obtaining any applicable permits or other governmental approval(s) applicable to or required for Tenant's Sign. Subject to the terms hereof, the content, size, design, location, graphics, materials, colors and other specifications of the Tenant's Sign shall be subject to the approval of Landlord, which approval shall not be unreasonably withheld. Tenant shall be responsible for all costs and expenses incurred in connection with the design, construction, installation, repair, operation (including utilities costs, if applicable), maintenance, compliance with laws, and removal of the Tenant's Sign. Tenant's signage rights set forth in this Section 23.5 shall be personal to the Original Tenant, and may not be assigned to any assignee or to any sublessee or any other person or entity. Landlord shall have the right to terminate Tenant's right to maintain Tenant's Sign in the event that Tenant shall be in default of this Lease after the expiration of any applicable cure period. In addition, Tenant's signage rights set forth in this Section 23.5 shall terminate at any time during the Lease Term during which the Original Tenant fails to physically occupy the entire Premises. Upon the expiration of the Lease Term or the earlier termination of Tenant's signage rights under this Section 23.5, Tenant shall, at Tenant's sole cost and expense, remove the Tenant's Sign and repair any and all damage caused by such removal and restore all affected areas to their original condition.

ARTICLE 24

COMPLIANCE WITH LAW

Tenant shall not do anything or suffer anything to be done in or about the Premises or the Project which will in any way conflict with any law, statute, ordinance or other governmental rule, regulation or requirement now in force or which may hereafter be enacted or promulgated, including any such governmental regulations related to disabled access (collectively, "**Applicable Laws**"). At its sole cost and expense, Tenant shall promptly comply with any Applicable Laws which relate to (i) Tenant's use of the Premises, (ii) any Alterations made by Tenant to the Premises, and any Tenant Improvements in the Premises, or (iii) the Base Building, but as to the Base Building, only to the extent such obligations are triggered by Alterations made by Tenant to the Premises to the extent such Alterations are not normal and customary business office improvements, or triggered by the Tenant Improvements to the extent such Tenant Improvements are not normal and customary business office improvements, or triggered by Tenant's use of the Premises for non-general office use. Should any standard or regulation now or hereafter be imposed on Landlord or Tenant by a state, federal or local governmental body charged with the establishment, regulation and enforcement of occupational, health or safety standards for employers, employees, landlords or tenants, then Tenant agrees, at its sole cost and expense, to comply promptly with such standards or regulations and to cooperate with Landlord, including, without limitation, by taking such actions as Landlord may reasonably require, in Landlord's efforts to comply with such standards or regulations. Tenant shall be responsible, at its sole cost and expense, to make all alterations to the Premises as are required to comply with the governmental rules, regulations, requirements or standards described in this Article 24. The judgment of any court of competent jurisdiction or the admission of Tenant in any judicial action, regardless of whether Landlord is a party thereto, that Tenant has violated any of said governmental measures, shall be conclusive of that fact as between Landlord and Tenant. Tenant shall promptly pay all fines, penalties and damages that may arise out of or be imposed because of its failure to comply with the provisions of this Article 24. Landlord shall comply with all Applicable Laws relating to the Base Building, provided that compliance with such Applicable Laws is not the responsibility of Tenant under this Lease, and provided further that Landlord's failure to comply therewith would prohibit Tenant from obtaining or maintaining a certificate of occupancy for the Premises, or would unreasonably and materially affect the safety of Tenant's employees or create a significant health hazard for Tenant's employees, or would otherwise materially and adversely affect Tenant's use of or access to the Premises. Landlord shall be permitted to include in Operating Expenses any costs or expenses incurred by Landlord under this Article 24 to the extent not prohibited by the terms of Article 4 of this Lease, above. Tenant hereby agrees to use reasonable efforts to notify Landlord if Tenant makes any Alterations or improvements to the Premises that might impact accessibility to the Premises or Building under any disability access laws. Landlord hereby agrees to use reasonable efforts to notify Tenant if Landlord makes any alterations or improvements to the Premises that might impact accessibility to the Premises or Building under any disability access laws.

ARTICLE 25

LATE CHARGES

If any installment of Rent or any other sum due from Tenant shall not be received by Landlord or Landlord's designee upon the date said amount is due, then Tenant shall pay to Landlord a late charge equal to six percent (6%) of the overdue amount plus any reasonable attorneys' fees incurred by Landlord by reason of Tenant's failure to pay Rent and/or other charges when due hereunder. The late charge shall be deemed Additional Rent and the right to require it shall be in addition to all of Landlord's other rights and remedies hereunder or at law and shall not be construed as liquidated damages or as limiting Landlord's remedies in any manner. In addition to the late charge described above, any Rent or other amounts owing hereunder which are not paid upon the date they are due, shall bear interest from the date when due until paid at a rate per annum equal to the lesser of (x) the annual "Bank Prime Loan" rate cited in the Federal Reserve Statistical Release Publication H.15(519), published weekly (or such other comparable index as Landlord and Tenant shall reasonably agree upon if such rate ceases to be published) plus four (4) percentage points, and (v) the highest rate permitted by applicable law.

ARTICLE 26

LANDLORD'S RIGHT TO CURE DEFAULT; PAYMENTS BY TENANT

26.1 **Landlord's Cure**. All covenants and agreements to be kept or performed by Tenant under this Lease shall be performed by Tenant at Tenant's sole cost and expense and without any reduction of Rent, except to the extent, if any, otherwise expressly provided herein. If Tenant shall fail to perform any obligation under this Lease, and such failure shall continue in excess of the time allowed under Section 19.1.2, above, unless a specific time period is otherwise stated in this Lease, Landlord may, but shall not be obligated to, make any such payment or perform any such act on Tenant's part without waiving its rights based upon any default of Tenant and without releasing Tenant from any obligations hereunder.

26.2 **Tenant's Reimbursement**. Except as may be specifically provided to the contrary in this Lease, Tenant shall pay to Landlord the following sums (which sums shall bear interest from the date accrued by Landlord until paid by Tenant at a rate per annum equal to interest at the rate set forth in Article 25 of this Lease, but in no case greater than the maximum amount of such interest permitted by law), upon delivery by Landlord to Tenant of statements therefor: (i) sums equal to expenditures reasonably made and obligations incurred by Landlord in connection with the remedying by Landlord of Tenant's defaults pursuant to the provisions of Section 26.1; (ii) sums equal to all losses, costs, liabilities, damages and expenses referred to in Article 10 of this Lease; and (iii) sums equal to all reasonable expenditures made and obligations incurred by Landlord in collecting or attempting to collect the Rent or in enforcing or attempting to enforce any rights of Landlord under this Lease or pursuant to law, including, without limitation, all legal fees and other amounts so expended. Tenant's obligations under this Section 26.2 shall survive the expiration or sooner termination of the Lease Term.

ARTICLE 27

ENTRY BY LANDLORD

Landlord reserves the right at all reasonable times and upon reasonable advance notice to Tenant (which notice, notwithstanding anything to the contrary contained in Article 28 of this Lease, may be oral, and which notice shall not be required in the case of an emergency) to enter the Premises to (i) inspect them; (ii) show the Premises to prospective purchasers or tenants, or to current or prospective mortgagees, ground or underlying lessors or insurers; (iii) post notices of nonresponsibility; or (iv) alter, improve or repair the Premises or the Building, or for structural alterations, repairs or improvements to the Building or the Building's systems and equipment. Notwithstanding anything to the contrary contained in this Article 27, upon reasonable advance notice to Tenant (except with regard to janitorial service and except for sub-item (B), below, and which notice, notwithstanding anything to the contrary contained in Article 28 of this Lease, may be oral, and which notice shall not be required in the case of an emergency), Landlord may enter the Premises at any time to (A) perform services required of Landlord, including janitorial service; (B) take possession due to any breach of this Lease in the manner provided herein; and (C) perform any covenants of Tenant which Tenant fails to perform. Landlord shall use commercially reasonable efforts to minimize interference with the conduct of Tenant's business in connection with such entries into the Premises. Landlord may make any such entries without the abatement of Rent and may take such reasonable steps as required to accomplish the stated purposes. Tenant hereby waives any claims for damages or for any injuries or inconvenience to or interference with Tenant's business, lost profits, any loss of occupancy or quiet enjoyment of the Premises, and any other loss occasioned thereby, provided that the foregoing shall not limit Landlord's liability, if any, pursuant to Applicable Law for personal injury and property damage to the extent caused by the gross negligence or willful misconduct of Landlord, its agents, employees or contractors. For each of the above purposes, Landlord shall at all times have a key with which to unlock all the doors in the Premises, excluding Tenant's vaults, safes and special security areas designated in advance by Tenant. In an emergency, Landlord shall have the right to use any means that Landlord may deem proper to open the doors in and to the Premises. Any entry into the Premises by Landlord in the manner hereinbefore described shall not be deemed to be a forcible or unlawful entry into, or a detainer of, the Premises, or an actual or constructive eviction of Tenant from any portion of the Premises. No provision of this Lease shall be construed as obligating Landlord to perform any repairs, alterations or decorations except as otherwise expressly agreed to be performed by Landlord herein.

ARTICLE 28

NOTICES

All notices, demands, designations, approvals or other communications (collectively, " **Notices**") given or required to be given by either party to the other hereunder or by law shall be in writing, shall be (A) sent by United States certified or registered mail, postage prepaid, return receipt requested ("**Mail**"), (B) delivered by a nationally recognized overnight courier, or (C) delivered personally. Any Notice shall be sent, transmitted, or delivered, as the case may be, to Tenant at the appropriate address set forth in Section 9 of the Summary, or to such other place as Tenant may from time to time designate in a Notice to Landlord, or to Landlord at the addresses set forth below, or to such other places as Landlord may from time to time designate in a Notice to Tenant. Any Notice will be deemed given (i) three (3) days after the date it is posted if sent by Mail, (ii) the date the overnight courier delivery is made, or (iii) the date personal delivery is

made. Any Notice given by an attorney on behalf of Landlord or by Landlord's managing agent shall be considered as given by Landlord and shall be fully effective as long as such notice otherwise meets the delivery requirements of this Article 28. As of the date of this Lease, any Notices to Landlord must be sent, transmitted, or delivered, as the case may be, to the following addresses:

Boston Properties Limited Partnership
Four Embarcadero Center
Lobby Level, Suite One
San Francisco, California 94111
Attention: Mr. Bob Pester

and

Boston Properties, Inc.
Prudential Center Tower
800 Boylston Street, Suite 1900
Boston, Massachusetts 02199
Attention: General Counsel

Boston Properties Limited Partnership
Four Embarcadero Center
Lobby Level, Suite One
San Francisco, California 94111
Attention: Regional Counsel

and

Allen Matkins Leck Gamble Mallory & Natsis LLP
1901 Avenue of the Stars, Suite 1800
Los Angeles, California 90067
Attention: Anton N. Natsis, Esq.

ARTICLE 29

MISCELLANEOUS PROVISIONS

29.1 **Terms; Captions**. The words "Landlord" and "Tenant" as used herein shall include the plural as well as the singular. The necessary grammatical changes required to make the provisions hereof apply either to corporations or partnerships or individuals, men or women, as the case may require, shall in all cases be assumed as though in each case fully expressed. The captions of Articles and Sections are for convenience only and shall not be deemed to limit, construe, affect or alter the meaning of such Articles and Sections.

29.2 **Binding Effect**. Subject to all other provisions of this Lease, each of the covenants, conditions and provisions of this Lease shall extend to and shall, as the case may require, bind or inure to the benefit not only of Landlord and of Tenant, but also of their

respective heirs, personal representatives, successors or assigns, provided this clause shall not permit any assignment by Tenant contrary to the provisions of Article 14 of this Lease.

29.3 **No Light, Air or View Rights**. No rights to any view or to light or air over any property, whether belonging to Landlord or any other person, are granted to Tenant by this Lease. Under no circumstances whatsoever at any time during the Lease Term shall any temporary darkening of any windows of the Premises or any temporary obstruction of the light or view therefrom by reason of any repairs, improvements, maintenance or cleaning in or about the Project, or any diminution, impairment or obstruction (whether partial or total) of light, air or view by any structure which may be erected on any land comprising a part of, or located adjacent to or otherwise in the path of light, air or view to, the Project, in any way impose any liability upon Landlord or in any way reduce or diminish Tenant's obligations under this Lease.

29.4 **Modification of Lease**. Should any current or prospective mortgagee or ground lessor for the Building or Project require a modification of this Lease, which modification will not cause an increased cost or expense to Tenant or in any other way materially and adversely change the rights and obligations of Tenant hereunder, then and in such event, Tenant agrees that this Lease may be so modified and agrees to execute whatever documents are reasonably required therefor and to deliver the same to Landlord within ten (10) days following a request therefor. At the request of Landlord or any mortgagee or ground lessor, Tenant agrees to execute a short form of Lease and deliver the same to Landlord within ten (10) days following the request therefor.

29.5 **Transfer of Landlord's Interest**. Tenant acknowledges that Landlord has the right to transfer all or any portion of its interest in the Project or Building and in this Lease, and Tenant agrees that in the event of any such transfer, Landlord shall automatically be released from all liability under this Lease and Tenant agrees to look solely to such transferee for the performance of Landlord's obligations hereunder after the date of transfer and such transferee shall be deemed to have fully assumed and be liable for all obligations of this Lease to be performed by Landlord, including the return of any Security Deposit, and Tenant shall attorn to such transferee.

29.6 **Prohibition Against Recording**. Except as provided in Section 29.4 of this Lease, neither this Lease, nor any memorandum, affidavit or other writing with respect thereto, shall be recorded by Tenant or by anyone acting through, under or on behalf of Tenant.

29.7 **Landlord's Title**. Landlord's title is and always shall be paramount to the title of Tenant. Nothing herein contained shall empower Tenant to do any act which can, shall or may encumber the title of Landlord.

29.8 **Relationship of Parties**. Nothing contained in this Lease shall be deemed or construed by the parties hereto or by any third party to create the relationship of principal and agent, partnership, joint venturer or any association between Landlord and Tenant.

29.9 **Application of Payments**. Landlord shall have the right to apply payments received from Tenant pursuant to this Lease, regardless of Tenant's designation of such

payments, to satisfy any obligations of Tenant hereunder, in such order and amounts as Landlord, in its sole discretion, may elect.

29.10 **Time of Essence**. Time is of the essence with respect to the performance of every provision of this Lease in which time of performance is a factor, including, without limitation, the giving of any Notice required to be given under this Lease or by law, the time periods for giving any such Notice and the taking of any action with respect to any such Notice.

29.11 **Partial Invalidity**. If any term, provision or condition contained in this Lease shall, to any extent, be invalid or unenforceable, the remainder of this Lease, or the application of such term, provision or condition to persons or circumstances other than those with respect to which it is invalid or unenforceable, shall not be affected thereby, and each and every other term, provision and condition of this Lease shall be valid and enforceable to the fullest extent possible permitted by law.

29.12 **No Warranty**. In executing and delivering this Lease, Tenant has not relied on any representations, including, but not limited to, any representation as to the amount of any item comprising Additional Rent or the amount of the Additional Rent in the aggregate or that Landlord is furnishing the same services to other tenants, at all, on the same level or on the same basis, or any warranty or any statement of Landlord which is not set forth herein or in one or more of the exhibits attached hereto.

29.13 **Landlord Exculpation**. The liability of Landlord or the Landlord Parties to Tenant for any default by Landlord under this Lease or arising in connection herewith or with Landlord's operation, management, leasing, repair, renovation, alteration or any other matter relating to the Project or the Premises shall be limited solely and exclusively to an amount which is equal to the interest of Landlord in the Building. Neither Landlord, nor any of the Landlord Parties shall have any personal liability therefor, and Tenant hereby expressly waives and releases such personal liability on behalf of itself and all persons claiming by, through or under Tenant. The limitations of liability contained in this Section 29.13 shall inure to the benefit of Landlord's and the Landlord Parties' present and future partners, beneficiaries, officers, directors, trustees, shareholders, agents and employees, and their respective partners, heirs, successors and assigns. Under no circumstances shall any present or future partner of Landlord (if Landlord is a partnership), or trustee or beneficiary (if Landlord or any partner of Landlord is a trust), have any liability for the performance of Landlord's obligations under this Lease. Notwithstanding any contrary provision herein, neither Landlord nor the Landlord Parties shall be liable under any circumstances for any indirect or consequential damages or any injury or damage to, or interference with, Tenant's business, including but not limited to, loss of profits, loss of rents or other revenues, loss of business opportunity, loss of goodwill or loss of use, in each case, however occurring.

29.14 **Entire Agreement**. It is understood and acknowledged that there are no oral agreements between the parties hereto affecting this Lease and this Lease constitutes the parties' entire agreement with respect to the leasing of the Premises and supersedes and cancels any and all previous negotiations, arrangements, brochures, agreements and understandings, if any, between the parties hereto or displayed by Landlord to Tenant with respect to the subject matter thereof, and none thereof shall be used to interpret or construe this Lease. None of the terms,

covenants, conditions or provisions of this Lease can be modified, deleted or added to except in writing signed by the parties hereto.

29.15 **Right to Lease**. Landlord reserves the absolute right to effect such other tenancies in the Project as Landlord in the exercise of its sole business judgment shall determine to best promote the interests of the Building or Project. Tenant does not rely on the fact, nor does Landlord represent, that any specific tenant or type or number of tenants shall, during the Lease Term, occupy any space in the Building or Project.

29.16 **Force Majeure**. Any prevention, delay or stoppage due to strikes, lockouts, labor disputes, acts of God, inability to obtain services, labor, or materials or reasonable substitutes therefor, governmental actions, civil commotions, fire or other casualty, and other causes beyond the reasonable control of the party obligated to perform, except with respect to the obligations imposed with regard to Rent and other charges to be paid by Tenant pursuant to this Lease (collectively, a "**Force Majeure**"), notwithstanding anything to the contrary contained in this Lease, shall excuse the performance of such party for a period equal to any such prevention, delay or stoppage and, therefore, if this Lease specifies a time period for performance of an obligation of either party, that time period shall be extended by the period of any delay in such party's performance caused by a Force Majeure.

29.17 **Waiver of Redemption by Tenant** . Tenant hereby waives, for Tenant and for all those claiming under Tenant, any and all rights now or hereafter existing to redeem by order or judgment of any court or by any legal process or writ, Tenant's right of occupancy of the Premises after any termination of this Lease.

29.18 **Tenant Parking**. Tenant shall have the right to park up to forty-four (44) automobiles (i.e., 3.3 automobiles for every 1,000 rentable square feet in the Premises), free of charge, in the portions of the Common Areas designated by Landlord for vehicular parking. Such parking shall be on an as available "first-come, first-served" basis which shall be in common with all other tenants of the Project. Tenant's continued right to use the Common Areas designated by Landlord for vehicular parking is conditioned upon Tenant abiding by all reasonable rules and regulations which are prescribed from time to time for the orderly operation and use of the parking facility, including any sticker or other identification system established by Landlord, Tenant's cooperation in seeing that Tenant's employees and visitors also comply with such rules and regulations and Tenant not being in default under this Lease. Landlord specifically reserves the right to change the size, configuration, design, layout and all other aspects of the Project parking facility at any time and Tenant acknowledges and agrees that Landlord may, without incurring any liability to Tenant and without any abatement of Rent under this Lease, from time to time, close-off or restrict access to the Project parking facility for purposes of permitting or facilitating any such construction, alteration or improvements. Landlord may delegate its responsibilities hereunder to a parking operator in which case such parking operator shall have all the rights of control attributed hereby to the Landlord. The parking passes rented by Tenant pursuant to this Section 29.18 are provided to Tenant solely for use by Tenant's own personnel and such passes may not be transferred, assigned, subleased or otherwise alienated by Tenant without Landlord's prior approval. Tenant may validate visitor parking by such method or methods as the Landlord may establish, at the validation rate from time to time generally applicable to visitor parking.

29.19 **Joint and Several**. If there is more than one Tenant, the obligations imposed upon Tenant under this Lease shall be joint and several.

29.20 **Authority**. Tenant hereby represents and warrants that Tenant is a duly formed and existing entity qualified to do business in California and that Tenant has full right and authority to execute and deliver this Lease and that each person signing on behalf of Tenant is authorized to do so.

29.21 **Attorneys' Fees**. In the event that either Landlord or Tenant should bring suit for the possession of the Premises, for the recovery of any sum due under this Lease, or because of the breach of any provision of this Lease or for any other relief against the other, then all costs and expenses, including reasonable attorneys' fees, incurred by the prevailing party therein shall be paid by the other party, which obligation on the part of the other party shall be deemed to have accrued on the date of the commencement of such action and shall be enforceable whether or not the action is prosecuted to judgment.

29.22 **Governing Law; WAIVER OF TRIAL BY JURY** . This Lease shall be construed and enforced in accordance with the laws of the State of California. IN ANY ACTION OR PROCEEDING ARISING HEREFROM, LANDLORD AND TENANT HEREBY CONSENT TO (I) THE JURISDICTION OF ANY COMPETENT COURT WITHIN THE STATE OF CALIFORNIA, (II) SERVICE OF PROCESS BY ANY MEANS AUTHORIZED BY CALIFORNIA LAW, AND (III) IN THE INTEREST OF SAVING TIME AND EXPENSE, TRIAL WITHOUT A JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM BROUGHT BY EITHER OF THE PARTIES HERETO AGAINST THE OTHER OR THEIR SUCCESSORS IN RESPECT OF ANY MATTER ARISING OUT OF OR IN CONNECTION WITH THIS LEASE, THE RELATIONSHIP OF LANDLORD AND TENANT, TENANT'S USE OR OCCUPANCY OF THE PREMISES, AND/OR ANY CLAIM FOR INJURY OR DAMAGE, OR ANY EMERGENCY OR STATUTORY REMEDY. IN THE EVENT LANDLORD COMMENCES ANY SUMMARY PROCEEDINGS OR ACTION FOR NONPAYMENT OF BASE RENT OR ADDITIONAL RENT, TENANT SHALL NOT INTERPOSE ANY COUNTERCLAIM OF ANY NATURE OR DESCRIPTION (UNLESS SUCH COUNTERCLAIM SHALL BE MANDATORY) IN ANY SUCH PROCEEDING OR ACTION, BUT SHALL BE RELEGATED TO AN INDEPENDENT ACTION AT LAW.

29.23 **Submission of Lease**. Submission of this instrument for examination or signature by Tenant does not constitute a reservation of, option for or option to lease, and it is not effective as a lease or otherwise until execution and delivery by both Landlord and Tenant.

29.24 **Brokers**. Landlord and Tenant hereby warrant to each other that they have had no dealings with any real estate broker or agent in connection with the negotiation of this Lease, excepting only the real estate brokers or agents specified in Section 11 of the Summary (the " **Brokers**"), and that they know of no other real estate broker or agent who is entitled to a commission in connection with this Lease. Each party agrees to indemnify and defend the other party against and hold the other party harmless from any and all claims, demands, losses, liabilities, lawsuits, judgments, costs and expenses (including without limitation reasonable attorneys' fees) with respect to any leasing commission or equivalent compensation alleged to be

owing on account of any dealings with any real estate broker or agent, other than the Brokers, occurring by, through, or under the indemnifying party.

29.25 **Independent Covenants**. This Lease shall be construed as though the covenants herein between Landlord and Tenant are independent and not dependent and Tenant hereby expressly waives the benefit of any statute to the contrary and agrees that if Landlord fails to perform its obligations set forth herein, Tenant shall not be entitled to make any repairs or perform any acts hereunder at Landlord's expense or to any setoff of the Rent or other amounts owing hereunder against Landlord.

29.26 **Project or Building Name and Signage**. Landlord shall have the right at any time to change the name of the Project or Building and to install, affix and maintain any and all signs on the exterior and on the interior of the Project or Building as Landlord may, in Landlord's sole discretion, desire. Tenant shall not use the words "Gateway Center" or the name of the Project or Building or use pictures or illustrations of the Project or Building in advertising or other publicity or for any purpose other than as the address of the business to be conducted by Tenant in the Premises, without the prior written consent of Landlord.

29.27 **Counterparts**. This Lease may be executed in counterparts with the same effect as if both parties hereto had executed the same document. Both counterparts shall be construed together and shall constitute a single lease.

29.28 **Confidentiality**. Tenant acknowledges that the content of this Lease and any related documents are confidential information. Tenant shall keep such confidential information strictly confidential and shall not disclose such confidential information to any person or entity other than Tenant's financial, legal, and space planning consultants. Notwithstanding the foregoing, Landlord understands and acknowledges that Tenant is subject to the public reporting requirements of the Securities Exchange Act of 1934, as amended, and, as such, Tenant may be required to publicly disclose this Lease as a material agreement of the Tenant. Landlord hereby consents to Tenant’s disclosure of this Agreement as required by law or the rules of any stock exchange that are applicable to Tenant.

29.29 **Development of the Project**.

29.29.1 **Subdivision**. Landlord reserves the right to further subdivide all or a portion of the Project. Tenant agrees to execute and deliver, upon demand by Landlord and in the form requested by Landlord, any additional documents needed to conform this Lease to the circumstances resulting from such subdivision.

29.29.2 **The Other Improvements**. If portions of the Project or property adjacent to the Project (collectively, the "**Other Improvements**") are owned by an entity other than Landlord, Landlord, at its option, may enter into an agreement with the owner or owners of any or all of the Other Improvements to provide (i) for reciprocal rights of access and/or use of the Project and the Other Improvements, (ii) for the common management, operation, maintenance, improvement and/or repair of all or any portion of the Project and the Other Improvements, (iii) for the allocation of a portion of the Direct Expenses to the Other Improvements and the operating expenses and taxes for the Other Improvements to the Project,

and (iv) for the use or improvement of the Other Improvements and/or the Project in connection with the improvement, construction, and/or excavation of the Other Improvements and/or the Project. Nothing contained herein shall be deemed or construed to limit or otherwise affect Landlord's right to convey all or any portion of the Project or any other of Landlord's rights described in this Lease.

29.29.3 **Construction of Project and Other Improvements**. Tenant acknowledges that portions of the Project and/or the Other Improvements may be under construction following Tenant's occupancy of the Premises, and that such construction may result in levels of noise, dust, odor, obstruction of access, etc. which are in excess of that present in a fully constructed project. Tenant hereby waives any and all rent offsets or claims of constructive eviction which may arise in connection with such construction.

29.30 **Building Renovations**. It is specifically understood and agreed that Landlord has no obligation and has made no promises to alter, remodel, improve, renovate, repair or decorate the Premises, Building, or any part thereof and that no representations respecting the condition of the Premises or the Building have been made by Landlord to Tenant except as specifically set forth herein or in the Tenant Work Letter. However, Tenant hereby acknowledges that Landlord is currently renovating or may during the Lease Term renovate, improve, alter, or modify (collectively, the "**Renovations**") the Project, the Building and/or the Premises. Tenant hereby agrees that such Renovations shall in no way constitute a constructive eviction of Tenant nor entitle Tenant to any abatement of Rent. Landlord shall have no responsibility and shall not be liable to Tenant for any injury to or interference with Tenant's business arising from the Renovations, nor shall Tenant be entitled to any compensation or damages from Landlord for loss of the use of the whole or any part of the Premises or of Tenant's personal property or improvements resulting from the Renovations, or for any inconvenience or annoyance occasioned by such Renovations.

29.31 **No Violation**. Tenant hereby warrants and represents that neither its execution of nor performance under this Lease shall cause Tenant to be in violation of any agreement, instrument, contract, law, rule or regulation by which Tenant is bound, and Tenant shall protect, defend, indemnify and hold Landlord harmless against any claims, demands, losses, damages, liabilities, costs and expenses, including, without limitation, reasonable attorneys' fees and costs, arising from Tenant's breach of this warranty and representation.

29.32 **Communications and Computer Lines**. Tenant may install, maintain, replace, remove or use any electrical, communications or computer wires and cables (collectively, the "**Lines**") at the Project in or serving solely the Premises, provided that (i) Tenant shall obtain Landlord's prior written consent, use an experienced and qualified contractor approved in writing by Landlord, and comply with all of the other provisions of Articles 7 and 8 of this Lease, (ii) an acceptable number of spare Lines and space for additional Lines shall be maintained for existing and future occupants of the Project, as determined in Landlord's reasonable opinion, (iii) the Lines therefor (including riser cables) shall be appropriately insulated to prevent excessive electromagnetic fields or radiation, and shall be surrounded by a protective conduit reasonably acceptable to Landlord, (iv) any new or existing Lines servicing the Premises shall comply with all applicable governmental laws and regulations, (v) as a condition to permitting the installation of new Lines, Landlord may require that Tenant remove existing Lines located in or serving the

Premises and repair any damage in connection with such removal, and (vi) Tenant shall pay all costs in connection therewith. Landlord reserves the right to require that Tenant remove any Lines located in or serving the Premises which are installed in violation of these provisions, or which are at any time in violation of any laws or represent a dangerous or potentially dangerous condition. Landlord further reserves the right to require that Tenant remove any and all Lines located in or serving the Premises upon the expiration of the Lease Term or upon any earlier termination of this Lease.

29.33 **Intentionally Omitted**.

29.34 **No Discrimination**. There shall be no discrimination against, or segregation of, any person or persons on account of sex, marital status, race, color, religion, creed, national origin or ancestry in the Transfer of the Premises, or any portion thereof, nor shall the Tenant itself, or any person claiming under or through it, establish or permit any such practice or practices of discrimination or segregation with reference to the selection, location, number, use or occupancy of tenants, lessees, subtenants, sublessees, or vendees of the Premises, or any portion thereof.

29.35 **Patriot Act and Executive Order 13224** . As an inducement to Landlord to enter into this Lease, Tenant hereby represents and warrants that: (i) Tenant is not, nor is it owned or controlled directly or indirectly by, any person, group, entity or nation named on any list issued by the Office of Foreign Assets Control of the United States Department of the Treasury ("**OFAC**") pursuant to Executive Order 13224 or any similar list or any law, order, rule or regulation or any Executive Order of the President of the United States as a terrorist, "Specially Designated National and Blocked Person" or other banned or blocked person (any such person, group, entity or nation being hereinafter referred to as a "**Prohibited Person**"); (ii) Tenant is not (nor is it owned or controlled, directly or indirectly, by any person, group, entity or nation which is) acting directly or indirectly for or on behalf of any Prohibited Person; and (iii) neither Tenant (nor any person, group, entity or nation which owns or controls Tenant, directly or indirectly) has conducted or will conduct business or has engaged or will engage in any transaction or dealing with any Prohibited Person, including without limitation any assignment of this Lease or any subletting of all or any portion of the Premises or the making or receiving of any contribution of funds, goods or services to or for the benefit of a Prohibited Person. In connection with the foregoing, it is expressly understood and agreed that (x) any breach by Tenant of the foregoing representations and warranties shall be deemed a default by Tenant under Section 19.1.4 of this Lease and shall be covered by the indemnity provisions of Section 10.1 above, and (y) the representations and warranties contained in this subsection shall be continuing in nature and shall survive the expiration or earlier termination of this Lease.

[signature page to follow]

IN WITNESS WHEREOF, Landlord and Tenant have caused this Lease to be executed the day and date first above written.

"Landlord":

BXP 611 GATEWAY CENTER LP,
a Delaware limited partnership

BY: BXP CALIFORNIA GP LLC,
a Delaware limited liability company,
its general partner

BY: BOSTON PROPERTIES LIMITED PARTNERSHIP,
a Delaware limited partnership,
its sole member

BY: BOSTON PROPERTIES, INC.,
a Delaware corporation,
its general partner

BY: __/s/ Rob C. Diehl_____
Name: Rob C. Diehl
Title: Senior Vice President, Leasing

"Tenant":

ATARA BIOTHERAPEUTICS, INC.,
a Delaware corporation

By:	/s/ John McGrath
Name:	John McGrath
Title:	CFO
By:	/s/ Isaac Ciechanover
Name:	Isaac Ciechanover
Title:	CEO

PLEASE NOTE: THIS LEASE MUST BE EXECUTED BY EITHER (I) BOTH (A) THE CHAIRMAN OF THE BOARD, THE PRESIDENT OR ANY VICE PRESIDENT OF TENANT, AND (B) THE SECRETARY, ANY ASSISTANT SECRETARY, THE CHIEF FINANCIAL OFFICER, OR ANY ASSISTANT TREASURER OF TENANT; OR (II) AN

AUTHORIZED SIGNATORY OF TENANT PURSUANT TO A CERTIFIED CORPORATE RESOLUTION, A COPY OF WHICH SHOULD BE DELIVERED WITH THE EXECUTED ORIGINALS.

EXHIBIT A

611 GATEWAY BOULEVARD

OUTLINE OF PREMISES

EXHIBIT A-1

OUTLINE OF FIRST OFFER SPACE

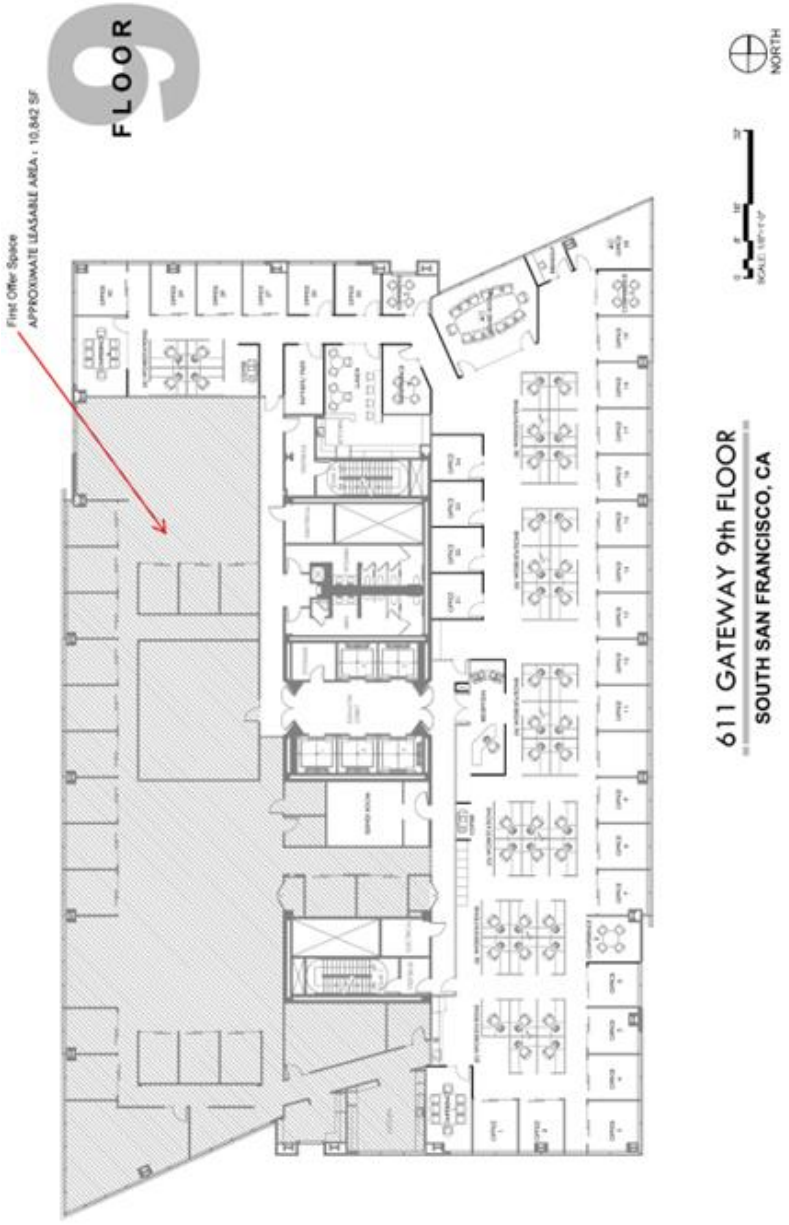


EXHIBIT B

611 GATEWAY BOULEVARD

TENANT WORK LETTER

This Tenant Work Letter shall set forth the terms and conditions relating to the construction of the Premises. This Tenant Work Letter is essentially organized chronologically and addresses the issues of the construction of the Premises, in sequence, as such issues will arise during the actual construction of the Premises. All references in this Tenant Work Letter to Articles or Sections of "this Lease" shall mean the relevant portions of Articles 1 through 29 of the Office Lease to which this Tenant Work Letter is attached as Exhibit B, and all references in this Tenant Work Letter to Sections of "this Tenant Work Letter" shall mean the relevant portions of Sections 1 through 5 of this Tenant Work Letter.

SECTION 1

BASE, SHELL AND CORE

1.1 **Base, Shell and Core**. Landlord has constructed, at its sole cost and expense, the base, shell, and core (i) of the Premises and (ii) of the floor of the Building on which the Premises is located (collectively, the "**Base, Shell, and Core**"). The Base, Shell and Core shall consist of the following elements: (A) base Building systems located in the vertical risers, raceways, and shafts (including elevator shafts and equipment, the telecom riser exclusive of equipment owned by third parties, electrical rooms, stair shafts and mechanical shafts) up to but not including the point of demarcation of such systems with the horizontal point of connection on a particular floor; (B) in the case of the sprinkler system, it shall additionally include the valve at the riser and the main sprinkler loop, but shall exclude branch pipes; (C) the concrete floor at each floor level, and (D) the Building's steel and concrete superstructure. Notwithstanding anything set forth in this Tenant Work Letter to the contrary, Tenant shall accept the Base, Shell and Core from Landlord in their presently existing, "as-is" condition.

1.2 **Landlord Work**. Landlord shall, at Landlord's sole cost and expense, concurrently with Tenant's construction of the Tenant Improvements, cause the construction or installation of the following items on the floor of the Building containing the Premises (collectively, the "**Landlord Work**"). Tenant may not change or alter the Landlord Work.

1.2.1 Public Corridor. A Building standard public corridor wall, the standard tenant entries and exits including doors, frames, hardware, and sidelight (if any), and standard tenant entry signage and exit lights (collectively, the "**Public Corridor**"), which Public Corridor is adjacent to the Premises as set forth on **Exhibit A** to the Lease.

1.2.2 Demising Walls Between Tenants. Building standard demising partitions between tenants which shall include studs, acoustical insulation and dry wall ready for finish on tenant side only and any necessary penetrations, fire dampers and sound traps (collectively, the "**Demising Walls**"), which Demising Walls are adjacent to the Premises as set forth on **Exhibit A** to the Lease.

Because Landlord shall be constructing the Landlord Work concurrently with Tenant's construction of the Tenant Improvements, there will be a certain "overlap" period pursuant to which both Landlord's representatives, employees, vendors and contractors and Tenant's representatives, employees, vendors and contractors may be present and performing work in a portion of the Premises. During any such "overlap" period(s) when both parties and/or their respective employees, vendors, contractors or consultants are concurrently performing work in, or accessing, any portion of the Premises, neither party shall unreasonably interfere with or delay the work of the other party and/or its contractors or consultants, and both parties shall mutually coordinate and cooperate with each other, and shall cause their respective employees, vendors, contractors, and consultants to work in harmony with and to mutually coordinate and cooperate with the other's employees, vendors, contractors and consultants, respectively, to minimize any interference or delay by either party with respect to the other party's work.

SECTION 2

TENANT IMPROVEMENTS

2.1 Tenant Improvement Allowance . Tenant shall be entitled to a one-time tenant improvement allowance (the "**Tenant Improvement Allowance**") in the amount set forth in Section 12 of the Summary for the costs relating to the initial design and construction of Tenant's improvements, which are permanently affixed to the Premises (the "**Tenant Improvements**"). In no event shall Landlord be obligated to make disbursements pursuant to this Tenant Work Letter in a total amount which exceeds the Tenant Improvement Allowance. In addition, Landlord shall contribute an amount not to exceed $0.15 per rentable square foot of the Premises ("**Landlord's Drawing Contribution**") toward the cost of one (1) preliminary space plan to be prepared by "Architect/Space Planner," as that term is defined in Section 3.1, below, and no portion of the Landlord's Drawing Contribution, if any, remaining after the completion of the Tenant Improvements shall be available for use by Tenant. In the event that the Tenant Improvement Allowance or Landlord's Drawing Contribution is not fully utilized by Tenant on or before the first (1st) anniversary of the Lease Commencement Date, then such unused amounts shall revert to Landlord, and Tenant shall have no further rights with respect thereto. Any Tenant Improvements that require the use of Building risers, raceways, shafts and/or conduits, shall be subject to Landlord's reasonable rules, regulations, and restrictions, including the requirement that any cabling vendor must be selected from a list provided by Landlord, and that the amount and location of any such cabling must be approved by Landlord. All Tenant Improvements for which the Tenant Improvement Allowance has been made available shall be deemed Landlord's property under the terms of the Lease; provided, however, Landlord may, by written notice to Tenant prior to the end of the Lease Term, or given following any earlier termination of this Lease, require Tenant, at Tenant's expense, to remove any Tenant Improvements and to repair any damage to the Premises and Building caused by such removal and return the affected portion of the Premises to their condition existing prior to the installment of such Tenant Improvements.

2.2 Disbursement of the Tenant Improvement Allowance .

2.2.1 Tenant Improvement Allowance Items . Except as otherwise set forth in this Tenant Work Letter, the Tenant Improvement Allowance shall be disbursed by Landlord

only for the following items and costs (collectively the " **Tenant Improvement Allowance Items** "):

2.2.1.1 Payment of the fees of the "Architect" and the "Engineers," as those terms are defined in Section 3.1 of this Tenant Work Letter, which fees shall, notwithstanding anything to the contrary contained in this Tenant Work Letter, not exceed an aggregate amount equal to $3.00 per rentable square foot of the Premises, and payment of the fees incurred by, and the cost of documents and materials supplied by, Landlord and Landlord's consultants in connection with the preparation and review of the "Construction Drawings," as that term is defined in Section 3.1 of this Tenant Work Letter;

2.2.1.2 The payment of plan check, permit and license fees relating to construction of the Tenant Improvements;

2.2.1.3 The cost of construction of the Tenant Improvements, including, without limitation, testing and inspection costs, freight elevator usage, hoisting and trash removal costs, and contractors' fees and general conditions;

2.2.1.4 The cost of any changes in the Base Building when such changes are required by the Construction Drawings (including if such changes are due to the fact that such work is prepared on an unoccupied basis), such cost to include all direct architectural and/or engineering fees and expenses incurred in connection therewith;

2.2.1.5 The cost of any changes to the Construction Drawings or Tenant Improvements required by all applicable building codes (the "Code");

2.2.1.6 The cost of connection of the Premises to the Building's energy management systems;

2.2.1.7 The cost of the "Coordination Fee," as that term is defined in Section 4.2.2 of this Tenant Work Letter;

2.2.1.8 Sales and use taxes and Title 24 fees; and

2.2.1.9 All other actual and reasonable out-of-pocket costs expended by Landlord in connection with the construction of the Tenant Improvements.

2.2.2 Disbursement of Tenant Improvement Allowance . During the construction of the Tenant Improvements, Landlord shall make monthly disbursements of the Tenant Improvement Allowance for Tenant Improvement Allowance Items for the benefit of Tenant and shall authorize the release of monies for the benefit of Tenant as follows.

2.2.2.1 Monthly Disbursements. On or before the day of each calendar month, as determined by Landlord, during the construction of the Tenant Improvements (or such other date as Landlord may designate), Tenant shall deliver to Landlord: (i) a request for payment of the "Contractor," as that term is defined in Section 4.1 of this Tenant Work Letter, approved by Tenant, in a form to be provided by Landlord, showing the schedule, by trade, of percentage of completion of the Tenant Improvements in the Premises, detailing the portion of

the work completed and the portion not completed; (ii) invoices from all of "Tenant's Agents," as that term is defined in Section 4.1.2 of this Tenant Work Letter, for labor rendered and materials delivered to the Premises; (iii) executed mechanic's lien releases from all of Tenant's Agents which shall comply with the appropriate provisions, as reasonably determined by Landlord, of California Civil Code Section 3262(d); and (iv) all other information reasonably requested by Landlord. Tenant's request for payment shall be deemed Tenant's acceptance and approval of the work furnished and/or the materials supplied as set forth in Tenant's payment request. Thereafter, Landlord shall deliver a check to Tenant in payment of the lesser of: (A) the amounts so requested by Tenant, as set forth in this Section 2.2.2.1, above, less a ten percent (10%) retention (the aggregate amount of such retentions to be known as the "Final Retention"), and (B) the balance of any remaining available portion of the Tenant Improvement Allowance (not including the Final Retention), provided that Landlord does not dispute any request for payment based on non-compliance of any work with the "Approved Working Drawings," as that term is defined in Section 3.4 below, or due to any substandard work, or for any other reason. Landlord's payment of such amounts shall not be deemed Landlord's approval or acceptance of the work furnished or materials supplied as set forth in Tenant's payment request.

2.2.2.2 Final Retention. Subject to the provisions of this Tenant Work Letter, a check for the Final Retention shall be delivered by Landlord to Tenant following the completion of construction of the Premises, provided that (i) Tenant delivers to Landlord properly executed mechanics lien releases in compliance with both California Civil Code Section 3262(d)(2) and either Section 3262(d)(3) or Section 3262(d)(4), (ii) Landlord has determined that no substandard work exists which adversely affects the mechanical, electrical, plumbing, heating, ventilating and air conditioning, life-safety or other systems of the Building, the curtain wall of the Building, the structure or exterior appearance of the Building, or any other tenant's use of such other tenant's leased premises in the Building and (iii) Architect delivers to Landlord a certificate, in a form reasonably acceptable to Landlord, certifying that the construction of the Tenant Improvements in the Premises has been substantially completed.

2.2.2.3 Other Terms. Landlord shall only be obligated to make disbursements from the Tenant Improvement Allowance to the extent costs are incurred by Tenant for Tenant Improvement Allowance Items. All Tenant Improvement Allowance Items for which the Tenant Improvement Allowance has been made available shall be deemed Landlord's property under the terms of this Lease.

2.3 Standard Tenant Improvement Package. Landlord has established specifications (the "**Specifications**") for the Building standard components to be used in the construction of the Tenant Improvements in the Premises (collectively, the "Standard Improvement Package"), which Specifications shall be supplied to Tenant by Landlord. The quality of Tenant Improvements shall be equal to or of greater quality than the quality of the Specifications, provided that the Tenant Improvements shall comply with certain Specifications as designated by Landlord. Landlord may make changes to the Specifications for the Standard Improvement Package from time to time.

2.4 Additional Allowance. On or before the Delivery Date, Tenant shall be entitled, pursuant to a written notice delivered to Landlord, to a one-time increase (the "**Additional Allowance**") of the Tenant Improvement Allowance in an amount not to exceed $10.00 for each

of the 13,670 rentable square feet of the Premises, for the costs relating to the initial design and construction of the Tenant Improvements. In the event Tenant exercises its right to use all or any portion of the Additional Allowance, the monthly Base Rent for the Premises shall be increased by an amount equal to the "Additional Monthly Base Rent," as that term is defined below, in order to repay the Additional Allowance to Landlord. The "**Additional Monthly Base Rent**" shall be determined as the missing component of an annuity, which annuity shall have (i) the amount of the Additional Allowance which Tenant elects to utilize as the present value amount, (ii) sixth (60) as the number of payments, (iii) seventy-one one-hundredths (.71), which is equal to eight and one-half percent (8.5%) divided by twelve (12) months per year, as the monthly interest factor, and (iv) the Additional Monthly Base Rent as the missing component of the annuity. In the event Tenant elects to utilize all or a portion of the Additional Allowance, then (a) all references in this Tenant Work Letter to the "Tenant Improvement Allowance", shall be deemed to include the Additional Allowance which Tenant elects to utilize, (b) the parties shall promptly execute an amendment (the "**Amendment**") to this Lease setting forth the new amount of the Base Rent and Tenant Improvement Allowance computed in accordance with this Section 2.4, (c) Tenant shall deposit with Landlord, concurrently with Tenant's execution and delivery of the Amendment to Landlord, cash in an amount equal to the Additional Allowance, which amount shall be held as part of the Security Deposit, and the Amendment shall contain the new amount of the Security Deposit, and (d) the additional amount of monthly Base Rent owing in accordance with this Section 2.1 for the first full month of the Lease Term which occurs after the expiration of any free rent period shall be paid by Tenant to Landlord at the time of Tenant's execution of the Amendment.

SECTION 3

CONSTRUCTION DRAWINGS

3.1 Selection of Architect/Construction Drawings. Tenant shall retain the architect/space planner designated by Landlord and reasonably acceptable to Tenant (the "**Architect**") to prepare the "Construction Drawings," as that term is defined in this Section 3.1. Tenant shall retain the engineering consultants designated by Landlord and reasonably acceptable to Tenant (the "**Engineers**") to prepare all plans and engineering working drawings relating to the structural, mechanical, electrical, plumbing, HVAC, lifesafety, and sprinkler work in the Premises, which work is not part of the Base Building. The plans and drawings to be prepared by Architect and the Engineers hereunder (including the "Final Space Plans" and the "Final Working Drawings," as those terms are defined in Section 3.2 and 3.3, below, respectively) shall be known collectively as the "**Construction Drawings**." All Construction Drawings shall comply with the drawing format and specifications reasonably determined by Landlord and consistent with industry standards, and shall be subject to Landlord's approval, which approval shall not be unreasonably withheld. Notwithstanding anything set forth herein to the contrary, Landlord and Tenant hereby agree that it shall be deemed reasonable for Landlord to withhold its approval of the Construction Drawings if a "Design Problem" exists. A "**Design Problem**" shall mean and refer to any design criteria which would (a) affect the Building Structure or Building Systems; (b) be in non-compliance with Codes or other Applicable Laws; (c) be seen from the exterior of the Premises; (d) cause material interference with Landlord or other tenants of the Building, (e) not comply with the Standard Improvement Package; (f) affect the certificate of occupancy or its legal equivalent for the Building or any portion thereof, or

(g) not, in Landlord's reasonable opinion, be readily useable for typical general office use by another tenant as a result of the unique configuration contemplated by the Final Space Plan. Tenant and Architect shall verify, in the field, the dimensions and conditions as shown on the relevant portions of the base building plans, and Tenant and Architect shall be solely responsible for the same, and Landlord shall have no responsibility in connection therewith. Landlord's review of the Construction Drawings as set forth in this Section 3, shall be for its sole purpose and shall not imply Landlord's review of the same, or obligate Landlord to review the same, for quality, design, Code compliance or other like matters. Accordingly, notwithstanding that any Construction Drawings are reviewed by Landlord or its space planner, architect, engineers and consultants, and notwithstanding any advice or assistance which may be rendered to Tenant by Landlord or Landlord's space planner, architect, engineers, and consultants, Landlord shall have no liability whatsoever in connection therewith and shall not be responsible for any omissions or errors contained in the Construction Drawings, and Tenant's waiver and indemnity set forth in this Lease shall specifically apply to the Construction Drawings.

3.2 Final Space Plan. Tenant shall supply Landlord with four (4) copies signed by Tenant of its final space plan for the Premises before any architectural working drawings or engineering drawings have been commenced. The final space plan (the "**Final Space Plan**") shall include a layout and designation of all offices, rooms and other partitioning, their intended use, and equipment to be contained therein. Landlord may request clarification or more specific drawings for special use items not included in the Final Space Plan. Landlord shall advise Tenant within five (5) business days after Landlord's receipt of the Final Space Plan for the Premises if the same is unsatisfactory or incomplete in any respect. If Tenant is so advised, Tenant shall promptly cause the Final Space Plan to be revised to correct any deficiencies or other matters Landlord may reasonably require.

3.3 Final Working Drawings. After the Final Space Plan has been approved by Landlord, Tenant shall supply the Engineers with a complete listing of standard and non-standard equipment and specifications, including, without limitation, B.T.U. calculations, electrical requirements and special electrical receptacle requirements for the Premises, to enable the Engineers and the Architect to complete the "Final Working Drawings" (as that term is defined below) in the manner as set forth below. Upon the approval of the Final Space Plan by Landlord and Tenant, Tenant shall promptly cause the Architect and the Engineers to complete the architectural and engineering drawings for the Premises, and Architect shall compile a fully coordinated set of architectural, structural, mechanical, electrical and plumbing working drawings in a form which is complete to allow subcontractors to bid on the work and to obtain all applicable permits (collectively, the "**Final Working Drawings**") and shall submit the same to Landlord for Landlord's approval. Tenant shall supply Landlord with four (4) copies signed by Tenant of such Final Working Drawings. Landlord shall advise Tenant within ten (10) business days after Landlord's receipt of the Final Working Drawings for the Premises if the same is unsatisfactory or incomplete in any respect. If Tenant is so advised, Tenant shall immediately revise the Final Working Drawings in accordance with such review and any disapproval of Landlord in connection therewith.

3.4 Approved Working Drawings. The Final Working Drawings shall be approved by Landlord (the "**Approved Working Drawings**") prior to the commencement of construction of the Premises by Tenant. After approval by Landlord of the Final Working Drawings, Tenant

may submit the same to the appropriate municipal authorities for all applicable building permits (the "Permits"). Tenant hereby agrees that neither Landlord nor Landlord's consultants shall be responsible for obtaining any building permit or certificate of occupancy for the Premises and that obtaining the same shall be Tenant's responsibility; provided, however, that Landlord shall cooperate with Tenant in executing permit applications and performing other ministerial acts reasonably necessary to enable Tenant to obtain any such permit or certificate of occupancy. No changes, modifications or alterations in the Approved Working Drawings may be made without the prior written consent of Landlord, which consent may not be unreasonably withheld.

SECTION 4

CONSTRUCTION OF THE TENANT IMPROVEMENTS

4.1 Tenant's Selection of Contractors.

4.1.1 The Contractor. A general contractor shall be retained by Tenant to construct the Tenant Improvements. Such general contractor ("**Contractor**") shall be selected by Tenant and subject to Landlord's reasonable approval.

4.1.2 Tenant's Agents. All subcontractors, laborers, materialmen, and suppliers used by Tenant (such subcontractors, laborers, materialmen, and suppliers, and the Contractor to be known collectively as "**Tenant's Agents**") shall be reasonably acceptable to Landlord.

4.2 Construction of Tenant Improvements by Tenant's Agents.

4.2.1 Construction Contract; Cost Budget. Prior to Tenant's execution of the construction contract and general conditions with Contractor (the "**Contract**"), Tenant shall submit the Contract to Landlord for its approval, which approval shall not be unreasonably withheld, conditioned or delayed. Prior to the commencement of the construction of the Tenant Improvements, and after Tenant has accepted all bids for the Tenant Improvements, Tenant shall provide Landlord with a detailed breakdown, by trade, of the final costs to be incurred or which have been incurred, as set forth more particularly in Sections 2.2.1.1 through 2.2.1.9, above, in connection with the design and construction of the Tenant Improvements to be performed by or at the direction of Tenant or the Contractor, which costs form a basis for the amount of the Contract (the "**Final Costs**"). Prior to the commencement of construction of the Tenant Improvements, if an Over-Allowance Amount is present, Tenant shall supply Landlord with cash in an amount (the "**Over-Allowance Amount**") equal to the difference between the amount of the Final Costs and the amount of the Tenant Improvement Allowance (less any portion thereof already disbursed by Landlord, or in the process of being disbursed by Landlord, on or before the commencement of construction of the Tenant Improvements). The Over-Allowance Amount shall be disbursed by Landlord prior to the disbursement of any of the then remaining portion of the Tenant Improvement Allowance, and such disbursement shall be pursuant to the same procedure as the Tenant Improvement Allowance. In the event that, after the Final Costs have been delivered by Tenant to Landlord, the costs relating to the design and construction of the Tenant Improvements shall change, any additional costs necessary to such design and construction in excess of the Final Costs, shall be paid by Tenant to Landlord immediately as an addition to the Over-Allowance Amount or at Landlord's option, Tenant shall make payments for

such additional costs out of its own funds, but Tenant shall continue to provide Landlord with the documents described in Sections 2.2.2.1 (i), (ii), (iii) and (iv) of this Tenant Work Letter, above, for Landlord's approval, prior to Tenant paying such costs. Notwithstanding anything set forth in this Tenant Work Letter to the contrary, construction of the Tenant Improvements shall not commence until (a) Landlord has approved the Contract, (b) Tenant has procured and delivered to Landlord a copy of all Permits, and (c) Tenant has delivered to Landlord the Over-Allowance Amount.

4.2.2 Tenant's Agents.

4.2.2.1 Landlord's General Conditions for Tenant's Agents and Tenant Improvement Work. Tenant's and Tenant's Agent's construction of the Tenant Improvements shall comply with the following: (i) the Tenant Improvements shall be constructed in strict accordance with the Approved Working Drawings; (ii) Landlord's reasonable rules and regulations for the construction of improvements in the Building, (iii) Tenant's Agents shall submit schedules of all work relating to the Tenant's Improvements to Contractor and Contractor shall, within five (5) business days of receipt thereof, inform Tenant's Agents of any changes which are necessary thereto, and Tenant's Agents shall adhere to such corrected schedule; and (iv) Tenant shall abide by all reasonable rules made by Landlord's Building manager with respect to the use of freight, loading dock and service elevators, storage of materials, coordination of work with the contractors of other tenants, and any other matter in connection with this Tenant Work Letter, including, without limitation, the construction of the Tenant Improvements. Tenant shall pay a logistical coordination fee (the "**Coordination Fee**") to Landlord in an amount equal to the three percent (3%) of the so-call "hard" construction costs in connection with the construction of the Tenant Improvements, which Coordination Fee shall be for services relating to the coordination of the construction of the Tenant Improvements. In the event of a conflict between the Approved Working Drawings and Landlord's construction rules and regulations, Landlord, in its sole and absolute discretion, shall determine which shall prevail.

4.2.2.2 Indemnity. Tenant's indemnity of Landlord as set forth in this Lease shall also apply with respect to any and all costs, losses, damages, injuries and liabilities related in any way to any act or omission of Tenant or Tenant's Agents, or anyone directly or indirectly employed by any of them, or in connection with Tenant's non-payment of any amount arising out of the Tenant Improvements and/or Tenant's disapproval of all or any portion of any request for payment. Such indemnity by Tenant, as set forth in this Lease, shall also apply with respect to any and all costs, losses, damages, injuries and liabilities related in any way to Landlord's performance of any ministerial acts reasonably necessary (i) to permit Tenant to complete the Tenant Improvements, and (ii) to enable Tenant to obtain any building permit or certificate of occupancy for the Premises.

4.2.2.3 Requirements of Tenant's Agents. Each of Tenant's Agents shall guarantee to Tenant and for the benefit of Landlord that the portion of the Tenant Improvements for which it is responsible shall be free from any defects in workmanship and materials for a period of not less than one (1) year from the date of completion thereof. Each of Tenant's Agents shall be responsible for the replacement or repair, without additional charge, of all work done or furnished in accordance with its contract that shall become defective within one (1) year after the later to occur of (i) completion of the work performed by such contractor or subcontractors and

(ii) the Lease Commencement Date. The correction of such work shall include, without additional charge, all additional expenses and damages incurred in connection with such removal or replacement of all or any part of the Tenant Improvements, and/or the Building and/or common areas that may be damaged or disturbed thereby. All such warranties or guarantees as to materials or workmanship of or with respect to the Tenant Improvements shall be contained in the Contract or subcontract and shall be written such that such guarantees or warranties shall inure to the benefit of both Landlord and Tenant, as their respective interests may appear, and can be directly enforced by either. Tenant covenants to give to Landlord any assignment or other assurances which may be necessary to effect such right of direct enforcement.

4.2.2.4 Insurance Requirements. Tenant shall comply with the terms of Section 10.14 of the Lease with respect to the construction of the Tenant Improvements.

4.2.3 Governmental Compliance. The Tenant Improvements shall comply in all respects with the following: (i) the Code and other state, federal, city or quasi-governmental laws, codes, ordinances and regulations, as each may apply according to the rulings of the controlling public official, agent or other person; (ii) applicable standards of the American Insurance Association (formerly, the National Board of Fire Underwriters) and the National Electrical Code; and (iii) building material manufacturer's specifications.

4.2.4 Inspection by Landlord. Tenant shall provide Landlord with reasonable prior notice of any inspection to be performed by a governmental entity in connection with the construction of the Tenant Improvements in order to allow Landlord to be present during such inspection; provided however, once such notice is given, Tenant is under no obligation to coordinate such inspections with Landlord. Landlord shall have the right to inspect the Tenant Improvements at all times, provided however, that Landlord's failure to inspect the Tenant Improvements shall in no event constitute a waiver of any of Landlord's rights hereunder nor shall Landlord's inspection of the Tenant Improvements constitute Landlord's approval of the same. Should Landlord disapprove any portion of the Tenant Improvements, Landlord shall notify Tenant in writing of such disapproval and shall specify the items disapproved. Any defects or deviations in, and/or disapproval by Landlord of, the Tenant Improvements shall be rectified by Tenant at no expense to Landlord, provided however, that in the event Landlord determines that a defect or deviation exists or disapproves of any matter in connection with any portion of the Tenant Improvements and such defect, deviation or matter might adversely affect the mechanical, electrical, plumbing, heating, ventilating and air conditioning or life-safety systems of the Building, the structure or exterior appearance of the Building or any other tenant's use of such other tenant's leased premises, Landlord may, take such action as Landlord deems necessary, at Tenant's expense and without incurring any liability on Landlord's part, to correct any such defect, deviation and/or matter, including, without limitation, causing the cessation of performance of the construction of the Tenant Improvements until such time as the defect, deviation and/or matter is corrected to Landlord's satisfaction.

4.2.5 Meetings. Commencing upon the execution of this Lease, Tenant shall hold weekly meetings at a reasonable time, with the Architect and the Contractor regarding the progress of the preparation of Construction Drawings and the construction of the Tenant Improvements, which meetings shall be held at a location designated by Landlord, and Landlord and/or its agents shall receive prior notice of, and shall have the right to attend, all such

meetings, and, upon Landlord's request, certain of Tenant's Agents shall attend such meetings. In addition, minutes shall be taken at all such meetings, a copy of which minutes shall be promptly delivered to Landlord. One such meeting each month shall include the review of Contractor's current request for payment.

4.3 Notice of Completion; Copy of Record Set of Plans. Within ten (10) days after completion of construction of the Tenant Improvements, Tenant shall cause a Notice of Completion to be recorded in the office of the Recorder of the county in which the Building is located in accordance with Section 3093 of the Civil Code of the State of California or any successor statute, and shall furnish a copy thereof to Landlord upon such recordation. If Tenant fails to do so, Landlord may execute and file the same on behalf of Tenant as Tenant's agent for such purpose, at Tenant's sole cost and expense. At the conclusion of construction, (i) Tenant shall cause the Architect and Contractor (A) to update the Approved Working Drawings as necessary to reflect all changes made to the Approved Working Drawings during the course of construction, (B) to certify to the best of their knowledge that the "record-set" of as-built drawings are true and correct, which certification shall survive the expiration or termination of this Lease, and (C) to deliver to Landlord four (4) sets of copies of such record set of drawings within ninety (90) days following issuance of a certificate of occupancy for the Premises, and (ii) Tenant shall deliver to Landlord a copy of all warranties, guaranties, and operating manuals and information relating to the improvements, equipment, and systems in the Premises.

SECTION 5

MISCELLANEOUS

5.1 Tenant's Representative. Tenant has designated Heather Turner as its sole representative with respect to the matters set forth in this Tenant Work Letter, who shall have full authority and responsibility to act on behalf of the Tenant as required in this Tenant Work Letter.

5.2 Landlord's Representative. Landlord has designated Peter Back as its sole representatives with respect to the matters set forth in this Tenant Work Letter, who, until further notice to Tenant, shall have full authority and responsibility to act on behalf of the Landlord as required in this Tenant Work Letter.

5.3 Time of the Essence in This Tenant Work Letter. Unless otherwise indicated, all references herein to a "number of days" shall mean and refer to calendar days. If any item requiring approval is timely disapproved by Landlord, the procedure for preparation of the document and approval thereof shall be repeated until the document is approved by Landlord.

5.4 Tenant's Lease Default. Notwithstanding any provision to the contrary contained in this Lease, if an event of default as described in the Lease or this Tenant Work Letter has occurred at any time on or before the Substantial Completion of the Premises, then (i) in addition to all other rights and remedies granted to Landlord pursuant to this Lease, Landlord shall have the right to withhold payment of all or any portion of the Tenant Improvement Allowance and/or Landlord may cause Contractor to cease the construction of the Premises (in which case, Tenant shall be responsible for any delay in the substantial completion of the Premises caused by such

work stoppage), and (ii) all other obligations of Landlord under the terms of this Tenant Work Letter shall be forgiven until such time as such default is cured pursuant to the terms of this Lease (in which case, Tenant shall be responsible for any delay in the substantial completion of the Premises caused by such inaction by Landlord).

EXHIBIT C

611 GATEWAY BOULEVARD

NOTICE OF LEASE TERM DATES

Date: _____

To: _____
_____
_____
_____

Copy to: _____
_____
_____
_____

Re:Office Lease
Dated: _____
Between: BP Gateway Center LLC, a Delaware limited liability company, Lessor or Landlord, and
_____, a _____, Lessee or Tenant

In accordance with the subject document we wish to advise you and/or confirm your tenancy of Suite _____ on the ____ floor of [APPROPRIATE BUILDING] Gateway Boulevard, South San Francisco, CA 94080, and that the following terms and conditions are accurate and in full force and effect:

Net rentable square feet _____
Lease commencement date_____
Base rent schedule*FromTo:*
_____

Lease term_____
Lease expiration date_____

Monthly Rent:
$_____

Rent checks are

Payable to:

[APPROPRIATE ENTITY]

Mailed to:

[APPROPRIATE ADDRESS]

All other inquiries to:
Boston Properties
Lobby Level, Suite One
Four Embarcadero Center
San Francisco, CA 94111
Telephone:415-772-0700
Fax:415-982-1780

If the Lease Commencement Date is other than the first day of the month, the first billing will contain a pro rata adjustment. Each billing thereafter, with the exception of the final billing, shall be for the full amount of the monthly installment as provided for in the Lease.

We request that you sign this letter where indicated below, confirming the information provided above, and return it to our representative below within five days of receipt. A return envelope is provided. Our failure to receive your executed Notice within such time period will

indicate your acceptance that the information set forth is correct. A second letter is enclosed for your files.

Boston Properties, L.P.

_____
Agreed to and Accepted:

By:Lease Administrator's nameDate
Lease Administration

By:_____Date
Its:_____

copy: Property Manager, Property Accountant
via:Certified Mail

EXHIBIT D

611 GATEWAY BOULEVARD

RULES AND REGULATIONS

1. **Signs**. Except as specifically provided in this Lease to which these rules and regulations are attached, no sign, placard, picture, advertisement, name or notice shall be installed or displayed on any part of the outside or inside of the Building or on the Common Areas or other areas of the Project without Landlord's prior written consent. Landlord may remove, at Tenant's expense and without notice, any sign installed or displayed in violation of this rule. All signs or lettering on doors and walls must be approved by Landlord, and shall be printed, painted, affixed or inscribed or modified at Tenant's expense by a person approved by Landlord. Without Landlord's written consent, Tenant shall not use the name of the Building or the Project in connection with or in promoting or advertising the business of Tenant except as Tenant's address. Landlord hereby agrees to provide Tenant with the Building's standard graphics at the entrance to the Premises and in the elevator lobby.

2. **Window Treatments**. Tenant shall not place anything against or near glass partitions or doors or windows which may appear unsightly from outside the Premises. Tenant shall be held responsible for any damage to the glass coating within the Premises. If Landlord objects in writing to any curtains, blinds, shades, screens or hanging plants or other similar objects attached to or used in connection with any window or door of the Premises, or placed on any windowsill, which are visible from the exterior of the Premises, Tenant shall immediately discontinue such use.

3. **Common Areas**. The sidewalks, entrances, halls, corridors, elevators and stairways of the Building and the Project shall not be obstructed or used as a waiting or lounging place by Tenant and the Tenant's Parties. All entrance doors leading from the Premises to the hallways are to be kept closed at all times. The outside areas immediately adjoining the Premises shall be kept clear at all times by Tenant, and Tenant shall not place or permit any obstructions, garbage, refuse, merchandise or displays in such areas. The halls, passages, exits, entrances, elevators, escalators and stairways are not open to the general public, but are open, subject to reasonable regulations, to Tenant's Parties. Landlord shall, in all cases, retain the right to control and prevent access thereto of all persons whose presence in the judgment of Landlord would be prejudicial to the safety of the Project or any part thereof provided that nothing herein contained shall be construed to prevent such access to persons with whom any tenant normally deals in the ordinary course of its business, unless such persons are engaged in illegal or unlawful activities. Neither Tenant nor any Tenant Parties shall go upon the roof of the Building.

4. **Directory**. The directory of the Building will be provided for the display of the name and location of tenants, and Landlord reserves the right to exclude any other names therefrom. Tenant shall be allocated its pro rata share of lines on the Building directory board in the main lobby.

5. **Cleanliness**. Tenant shall not exhibit carelessness or indifference to the good order and cleanliness of the Premises.

6. **Keys**. Landlord will furnish Tenant, free of charge, with two keys to each exterior door lock in the Premises. All duplicate keys shall be purchased only from Landlord. Landlord may charge a reasonable fee for any additional keys. Tenant shall not make or have made additional keys, and Tenant shall not alter any lock or install a new additional lock or bolt on any door of its Premises. Tenant, upon the termination of its tenancy, shall deliver to Landlord the keys to all doors and pay Landlord for any lost keys.

7. **Security Devices**. If Tenant requires telephonic, burglar alarm or similar services, it shall first obtain and comply with Landlord's instructions for their installation.

8. **Freight Elevators**. The Building service elevator shall be available for use by all tenants in the Building, subject to such reasonable scheduling by Landlord. No equipment, materials, furniture, packages, supplies, merchandise or other property will be received in the Building or carried in the elevators except between such hours and in such elevators as may be designated by Landlord. Tenant's initial move-in and subsequent deliveries of bulky items, such as furniture, safes and similar items shall be made after obtaining Landlord's written consent and shall be made during the hours of 12:00 a.m. to 5:00 a.m. and 6:00 p.m. to 11:59 p.m., Monday through Friday, or at any time on Saturday or Sunday, unless otherwise agreed in writing by Landlord. Deliveries during normal office hours shall be limited to normal office supplies and other small items. No deliveries shall be made which impede or interfere with other tenants or the operation of the Building.

9. **Floor Load**. Tenant shall not place a load upon any floor of the Premises which exceeds the load per square foot which such floor was designed to carry and which is allowed by law. Prior to delivery of any heavy object to the Building, Tenant shall notify Landlord of such object's specifications and contemplated location in order that Landlord may take action to prevent structural load damage to the Building. Landlord shall have the right to prescribe the weight, size and position of all equipment, materials, furniture or other property brought into the Building. Heavy objects shall, if considered necessary by Landlord, stand on such platforms as determined by Landlord to be necessary to properly distribute the weight, which platforms shall be provided at Tenant's sole cost and expense. Tenant shall be responsible for all structural engineering required to determine structural load. Business machines and mechanical equipment belonging to Tenant which cause noise or vibration that may be transmitted to the structure of the Building or to any space therein to such degree as to be objectionable to Landlord or to any tenants in the Building, shall be placed and maintained by Tenant, at Tenant's sole cost and expense, on vibration eliminators or other devices sufficient to eliminate noise or vibration. The persons employed to move such equipment in or out of the Building must be acceptable to Landlord. Landlord will not be responsible for loss of, or damage to, any such equipment or other property from any cause, and all damage done to the Building by maintaining or moving such equipment or other property shall be repaired at the expense of Tenant.

10. **No Waste**. Tenant shall not use any method of heating and air conditioning other than that supplied by Landlord. Further, Tenant shall not waste electricity,

water or air conditioning and agrees to cooperate fully with Landlord to assure the most effective operation of the Building's heating and air conditioning and to comply with any governmental energy-saving rules, laws or regulations of which Tenant has actual notice. Tenant shall keep corridor doors closed, and shall close window coverings at the end of each business day.

11. **Building Identification**. Landlord reserves the right, exercisable without notice and without liability to Tenant, to change the name and address of the Building and/or any other part of the Project.

12. **Building Access**. Landlord reserves the right to exclude from the Building between the hours of 12:00 a.m. to 7:00 a.m. and 6:00 p.m. to 11:59 p.m., Monday through Friday, and on Saturday, Sunday and holidays, any person not having a Building issue key and is not identified on the daily access list. Tenant shall be responsible for all persons for whom it requests passes and shall be liable to Landlord for all acts of such persons. Landlord may prevent access to the Project or any part thereof in case of invasion, mob, riot, public excitement or other commotion. Landlord may exclude or expel from the Project or any part thereof any person who, in Landlord's judgment, is intoxicated or under the influence of liquor or drugs or is in violation of any of the rules and regulations of the Project. Landlord shall not be liable for damages for any error with regard to the admission to or exclusion from the Project or any part thereof of any person.

13. **Building Security**. Before Tenant and the Tenant Parties leave the Premises each day, Tenant shall (a) close and lock the doors of its Premises, (b) shut off all water faucets and other utilities, (c) draw or lower window coverings, and (d) turn out all lights. Tenant shall be responsible for any damage or injuries sustained by other tenants or occupants of the Building or by Landlord for noncompliance with this rule.

14. **Outside Services**. Tenant shall not obtain for use on the Premises, drinking water, food, beverage, towel or other similar services or accept barbering or bootblacking service upon the Premises, except as such hours and under such regulations as may be fixed by Landlord. Canvassing, soliciting and distribution of handbills or any other written material, and peddling in the Building are prohibited, and Tenant shall cooperate to prevent such activities.

15. **Lavatories**. The toilet rooms, toilets, urinals, wash bowls and other apparatus shall not be used for any purpose other than that for which they were constructed and no foreign substance of any kind whatsoever shall be thrown therein. The expense of any breakage, stoppage or damage resulting from the violation of this rule shall be borne by the tenant who, or whose Tenant Parties, shall have caused it.

16. **Solicitation**. Tenant shall not make any room-to-room solicitation of business from other tenants in the Project or any part thereof.

17. **Electronic Devices**. Tenant shall not install any radio or television antenna, loudspeaker or other devices on the roof or exterior walls of the Building. Tenant shall not interfere with radio or television broadcasting or reception from or in the Building or elsewhere.

18. **Trash Disposal**. Tenant shall store all its trash and garbage within the Premises or in other facilities provided by Landlord. Tenant shall not place in any trash box or receptacle any material which cannot be disposed of in the ordinary and customary manner of trash and garbage disposal. All garbage and refuse disposal shall be made in accordance with directions issued from time to time by Landlord.

19. **Prohibited Uses**. The Premises shall not be used for (a) the keeping of any bicycles, motorcycles or animals of any kind, or (b) lodging, or (c) for manufacturing of any kind; nor shall the Premises be used for any illegal purpose. No cooking or heating of food is permitted on the Premises, excepting therefrom microwave ovens and equipment for brewing coffee, tea, hot chocolate and similar beverages. Such cooking and heating devices and their use should be approved by Underwriters Laboratories in accordance with all applicable insurance regulations and federal, state, county and city laws, codes, ordinances, rules and regulations. Tenant shall not install, maintain or operate upon the Premises any vending machines without the written consent of Landlord, which consent shall not be unreasonably withheld.

20. **Prohibited Equipment**. Tenant shall not use in any space or in the public halls of the Project any hand truck except those equipped with rubber tires and side guards or such other material- handling equipment as Landlord may approve. Tenant shall not bring any other vehicles of any kind into the Building.

21. **Safety Procedures**. Tenant shall comply with all safety, fire protection and evacuation procedures and regulations established by Landlord or any governmental agency.

22. **Premises Security**. Tenant assumes full responsibility for protecting its space from theft, robbery and pilferage, which includes keeping doors locked and other means of entry to the Premises closed and secure. Landlord shall not in any way be responsible to Tenants or any Tenant Party, for any loss of property from the Premises or public areas or for any damage to any property thereon from any cause whatsoever.

23. **Building Management**. Tenant's requirements will be attended to only upon appropriate application to the Building management office by an authorized individual. Employees of Landlord shall not perform any work or do anything outside of their regular duties unless under special instructions from Landlord, and no employee of Landlord will admit any person (Tenant or otherwise) to any office without specific instructions from Landlord.

24. **Waiver**. Landlord may waive any one or more of these Rules and Regulations for the benefit of Tenant or any other tenant, but no such waiver by Landlord shall be construed as a waiver of such Rules and Regulations in favor of Tenant or any other tenant, nor prevent Landlord from thereafter enforcing any such Rules and Regulations against any or all of the tenants of the Building.

25. **Integration**. These Rules and Regulations are in addition to, and shall not be construed to in any way modify or amend, in whole or in part, the terms, covenants, agreements and conditions of the Lease.

26. **Additional Regulations**. Landlord reserves the right to make such other and reasonable rules and regulations as, in its judgment, may from time to time be needed for

safety and security, for care and cleanliness of the Project of any part thereof and for the preservation of good order therein. Tenant agrees to abide by all such Rules and Regulations hereinabove stated and any additional rules and regulations which are adopted and delivered to Tenant in writing.

27. **Observance of Rules**. Tenant shall be responsible for the observance of all of the foregoing rules by Tenant's employees, agents, clients, customers, invitees, licensees and guests.

28. **Parking Facilities**. The following rules and regulations shall govern use of the parking facilities within the Common Areas appurtenant to the Project (such parking facilities being collectively referred to hereinafter as the "Parking Area").

28.1 Persons using the Parking Area shall obey all signs and shall park only in areas designated for vehicle parking within painted stall lines. Tenant's parking spaces shall be used only for parking vehicles no longer than full-sized passenger automobiles. Tenant shall not permit any vehicle that belongs to or is controlled by Tenant, its agents, employees, invitees, licensees and visitors, to be loaded, unloaded or parked in areas other than those designated by Landlord or its parking operator for such activities. No maintenance, washing, waxing or cleaning of vehicles shall be permitted in the Parking Area. Unless otherwise instructed, each person using the Parking Area shall park and lock his or her own vehicle. Neither Landlord nor its parking operator shall be liable for damage to any vehicle, injury to any person or loss of any property, all of which risks are assumed by the person using the Parking Area. Parking pursuant to this Lease is intended as a license only, and no bailment is intended or created hereby. Tenant shall abide by those rules promulgated by Landlord which provide for tandem parking. No overnight or extended term storage of any vehicles or other object shall be permitted.

28.2 Persons using the Parking Area shall comply with any parking identification system established by Landlord or its parking operator. Such a system may include the validation of visitor parking, at the validation rate applicable to visitor parking from time to time as set by Landlord or its parking operator. Parking stickers or other identification devices supplied by Landlord shall remain the property of Landlord. Such devices shall not be transferable, and any such device in the possession of an unauthorized holder may be retained by Landlord and declared void. Upon the loss or obliteration of a parking identification device, Tenant shall pay such reasonable replacement charge as may be established by Landlord or its parking operator. Upon the termination of parking privileges, all parking identification devices supplied by Landlord shall be returned to Landlord. Landlord may refuse the sale of monthly stickers or other parking identification devices to any tenant or person and/or his agents or representatives who willfully refuse to comply with these Rules and Regulations and all unposted city, state or federal ordinances, laws, or agreements. Loss or theft of parking identification devices from automobiles must be reported to the garage manager immediately, and a lost or stolen report must be filed by the customer at that time. Landlord may exclude any car from the parking facilities that does not have a identification device. Any parking identification devices reported lost or stolen found on any unauthorized car will be confiscated and the illegal holder will be subject to prosecution. Lost or stolen devices found by the purchaser must be reported to the parking facility office immediately to avoid confusion.

28.3 The speed limit within all parking areas shall be five (5) miles per hour.

28.4 Landlord reserves the right to modify, redesign or redesignate uses permitted in the Parking Area or any portion thereof, to relocate parking spaces from floor to floor, from one portion of the Parking Area to another or to reasonably adjacent offsite locations, and to allocate parking spaces between compact and standard sizes from time to time, as long as the same comply with applicable laws and ordinances. Reserved parking spaces shall be clearly and prominently marked as such by Landlord. But neither Landlord nor its parking operator shall be liable or responsible for the failure of persons to observe such markings or to obey other rules and regulations, agreements, laws or ordinances applicable to the Parking Area. Without limiting the generality of the foregoing, Landlord shall not be obligated to tow any violator's vehicle, or to declare a default under or terminate the lease of any other tenant of the Building, on account of any such failure. If for any reason Landlord is unable to provide to Tenant all or any portion of its parking spaces or Tenant is unreasonably denied access thereto during the initial term of this Lease or any renewal or extension hereof, such fact shall not be a default by Landlord or permit Tenant to terminate this Lease, either in whole or in part, but Tenant's obligation to pay rental for any parking space which is not provided by Landlord shall be abated for so long as Tenant does not have the use of such parking space, in full settlement of all claims that Tenant might otherwise have against Landlord by reason of Landlord's failure or inability to provide Tenant with such parking space.

Tenant shall be responsible for the compliance with all of the foregoing rules and regulations by Tenant and Tenant Parties. Landlord may refuse to permit any person who violates any such rules and regulations to have access to the Project or any part thereof. Landlord reserves the right from time to time to modify the rules and regulations set forth herein, including, without limitation, to adopt and modify such rules and regulations applicable to the Parking Area, as it deems necessary for the proper operation.

EXHIBIT E

611 GATEWAY BOULEVARD

FORM OF TENANT'S ESTOPPEL CERTIFICATE

The undersigned, as Tenant under that certain Office Lease (the "Lease") made and entered into as of _____, 20__ by and between _____, as Landlord, and the undersigned, as Tenant, for Premises on the _____ floor(s) of the office building located at _____, certifies as follows:

1. Attached hereto as Exhibit A is a true and correct copy of the Lease and all amendments and modifications thereto. The documents contained in **Exhibit A** represent the entire agreement between the parties as to the Premises.

2. The undersigned currently occupies the Premises described in the Lease, the Lease Term commenced on _____, and the Lease Term expires on _____, and the undersigned has no option to terminate or cancel the Lease or to purchase all or any part of the Premises, the Building and/or the Project.

3. Base Rent became payable on _____.

4. The Lease is in full force and effect and has not been modified, supplemented or amended in any way except as provided in **Exhibit A**.

5. Tenant has not transferred, assigned, or sublet any portion of the Premises nor entered into any license or concession agreements with respect thereto except as follows:

6. Tenant shall not modify the documents contained in **Exhibit A** without the prior written consent of Landlord's mortgagee.

7. All monthly installments of Base Rent, all Additional Rent and all monthly installments of estimated Additional Rent have been paid when due through _____. The current monthly installment of Base Rent is $_____.

8. All conditions of the Lease to be performed by Landlord necessary to the enforceability of the Lease have been satisfied and Landlord is not in default thereunder. In addition, the undersigned has not delivered any notice to Landlord regarding a default by Landlord thereunder.

9. No rental has been paid more than thirty (30) days in advance and no security has been deposited with Landlord except the Security Deposit in the amount of $_____ as provided in the Lease.

10. As of the date hereof, there are no existing defenses or offsets, or, to the undersigned's knowledge, claims or any basis for a claim, that the undersigned has against Landlord.

11. If Tenant is a corporation, limited liability company, partnership or limited liability partnership, each individual executing this Estoppel Certificate on behalf of Tenant hereby represents and warrants that Tenant is a duly formed and existing entity qualified to do business in California and that Tenant has full right and authority to execute and deliver this Estoppel Certificate and that each person signing on behalf of Tenant is authorized to do so.

12. There are no actions pending against the undersigned under the bankruptcy or similar laws of the United States or any state.

13. Other than in compliance with all applicable laws and incidental to the ordinary course of the use of the Premises, the undersigned has not used or stored any hazardous substances in the Premises.

14. All tenant improvement work to be performed by Landlord under the Lease has been completed in accordance with the Lease and has been accepted by the undersigned and all reimbursements and allowances due to the undersigned under the Lease in connection with any tenant improvement work have been paid in full.

The undersigned acknowledges that this Estoppel Certificate may be delivered to Landlord or to a prospective mortgagee or prospective purchaser, and acknowledges that said prospective mortgagee or prospective purchaser will be relying upon the statements contained herein in making the loan or acquiring the property of which the Premises are a part and that receipt by it of this certificate is a condition of making such loan or acquiring such property.

Executed at _____ on the ____ day of _____, 20__.

"Tenant":

a

By: _____

Its: _____

By: _____

Its: _____

EXHIBIT F
611 GATEWAY BOULEVARD

STANDARDS FOR UTILITIES AND SERVICES

1. **Elevators**. Provide non-attended passenger elevators to and from the floor(s) on which the Premises are located. Landlord may limit the number of elevators operating outside normal business hours.

2. **HVAC**. On Monday through Friday, except holidays, from 7:00 a.m. to 6:00 p.m., ventilate the Premises and furnish air conditioning or heating on such days and hours, in temperatures and amounts which in Landlord's good faith judgment are reasonably required for comfortable occupancy of the Premises under normal business operations. If Tenant requires air conditioning during other hours, Landlord will furnish same through an access system provided to Tenant at the Premises, if available, or otherwise as specified in a written request of Tenant delivered to the Building management office before noon on the preceding business day. For this service Tenant will pay Landlord, upon receipt of Landlord's statement, the charge at an hourly rate determined by Landlord from time to time, which is currently $192.37 for full HVAC and $85.82 for fans only per hour. Tenant agrees that neither Tenant nor any Tenant Party shall at any time enter mechanical installations or facilities of the Building or adjust, tamper with, touch or otherwise in any manner affect said installations or facilities. The cost of maintenance and service calls to adjust and regulate the air conditioning system shall be charged to Tenant if the need for maintenance work results from either Tenant's adjustment of room thermostats or Tenant's failure to comply with Landlord's rules governing the temperature within the Premises.

3. **Lighting**. Furnish electric lighting for all public areas and special service areas of the Building as Landlord determines in good faith to be reasonable and standard, including replacement of Building standard lights, bulbs and tubes.

4. **Electrical Service**. Subject to the limitation of this Paragraph 4, furnish electrical service to the Premises, including providing and installing all Building standard replacement lighting tubes. If Tenant uses more electrical power than Landlord in good faith considers reasonable or normal for office use, Tenant will pay Landlord on a monthly basis the cost of such excess power consumed by Tenant. Consumption will be determined, at Landlord's election, either (a) by a survey performed by a reputable consultant selected by Landlord, or (b) through separate meters or submeters installed, maintained and read by Landlord at Tenant's cost. For purposes of this Paragraph 4 only, "month" and "monthly" shall mean any billing period used by the utility or other power provider supplying electricity. All installations of electrical fixtures, appliances and equipment within the Premises shall be subject to Landlord's prior approval, and if they affect the temperature or humidity otherwise maintained, Landlord may, at Tenant's sole cost and expense (to be paid within (30) days after delivery of written demand supported by invoices or other reasonably satisfactory evidence), install supplemental air conditioning units. Tenant's use of electricity shall never exceed Tenant's share of the capacity of existing feeders to the Building or of the risers, wiring installations and transformers serving the floor(s) containing the Premises. Landlord shall provide up to 3.5 watts per usable square foot (demand) of riser and floor panel electrical capacity averaged over the floor being serviced. Tenant shall be allocated an approximate 2.0 watts per usable square foot for power and 1.5

watts per usable square foot for lighting. Any risers or wiring necessary to meet Tenant's excess electrical requirements will be installed by Landlord on Tenant's request, at Tenant's sole cost and expense (to be paid in advance), but only if in Landlord's good faith belief they are necessary and will not cause damage to the Building or a dangerous condition, entail excessive or unreasonable alterations, repairs or expense, or disturb other occupants.

5. **Water**. Provide toilet facilities, water for lavatory and toilet purposes, cold water for drinking and tepid water for lavatory purposes, all at points of supply provided for general use of tenants in the Building through fixtures installed by Landlord or by Tenant with Landlord's consent.

6. **Janitorial**. Provide janitorial service to the Premises on business days and other cleaning services as Landlord determines to be reasonably required and all of which are consistent with the services being provided in the Comparable Buildings. Tenant will pay Landlord the full cost attributable to any extraordinary janitorial or cleaning services which the Premises may require.

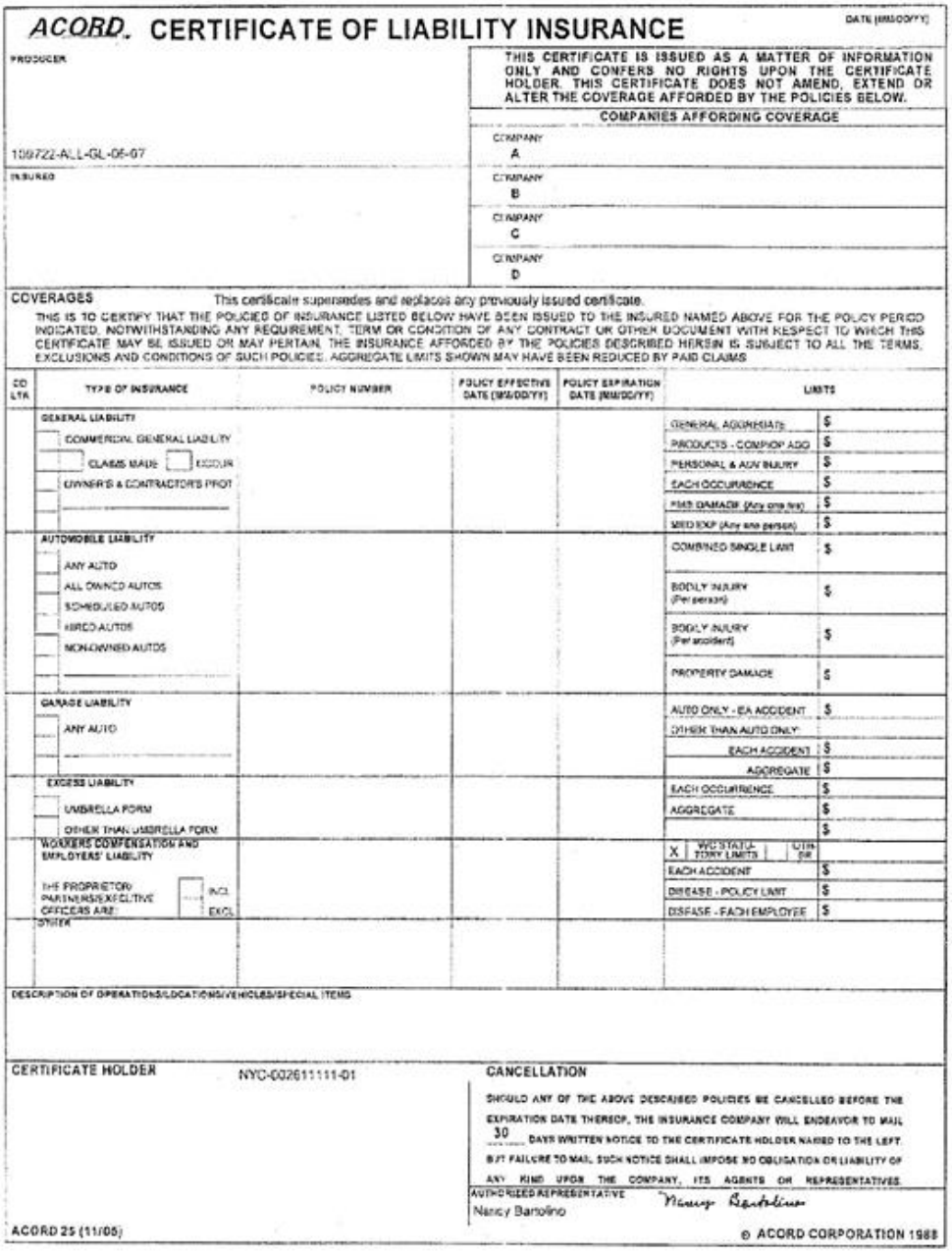
7. **Maintenance of Non-Building Standard Items** . Maintenance and service costs necessary for non-building standard items in the Premises shall be the responsibility of Tenant. As used in this paragraph, non-building standard items shall include, without limitation, heat pumps, condenser pumps, sinks and associated drain pipes, faucets, hot water heaters, garbage disposals, dishwashers, refrigerators, ice makers, air conditioning units, projection screens and associated wiring and switching, incandescent downlight or wallwash fixtures and lamps, floor electrical outlets and power poles.

8. **Security Services.** Provide Building security personnel twenty-four (24) hours per day, seven (7) days per week, fifty-two (52) weeks per year and a card access system which allows access to individual office floors twenty-four (24) hours per day, seven (7) days per week, fifty-two (52) weeks per year, all of which shall be provided by Landlord in its sole and absolute discretion. Notwithstanding Landlord's providing security, Tenant waives any claim against Landlord with respect to any loss by theft or any other damage suffered or incurred by Tenant in connection with any entry into the Premises or any other breach of security with respect to the Premises or the Building, except due to the gross negligence or willful misconduct of Landlord.

Landlord reserves the right to adopt reasonably, nondiscriminatory modifications and additions to these standards, which Landlord shall promptly deliver to Tenant in writing.

EXHIBIT G

ACCEPTABLE FORMS OF INSURANCE CERTIFICATE



ACORD. CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YY)

PRODUCER

109722-ALL-GL-05-07

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED

COMPANIES AFFORDING COVERAGE

COMPANY A

COMPANY B

COMPANY C

COMPANY D

COVERAGES

This certificate supersedes and replaces any previously issued certificate.

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
	GENERAL LIABILITY				GENERAL AGGREGATE	$
	COMMERCIAL GENERAL LIABILITY				PRODUCTS - COMP/OP AGG	$
	CLAIMS MADE OCCUR				PERSONAL & ADV INJURY	$
	OWNER'S & CONTRACTOR'S PROT				EACH OCCURRENCE	$
					FIRE DAMAGE (Any one fire)	$
					MED EXP (Any one person)	$
	AUTOMOBILE LIABILITY				COMBINED SINGLE LIMIT	$
	ANY AUTO				BODILY INJURY (Per person)	$
	ALL OWNED AUTOS					
	SCHEDULED AUTOS				BODILY INJURY (Per accident)	$
	HIRED AUTOS					
	NON-OWNED AUTOS				PROPERTY DAMAGE	$
	GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT	$
	ANY AUTO				OTHER THAN AUTO ONLY:	
					EACH ACCIDENT	$
					AGGREGATE	$
	EXCESS LIABILITY				EACH OCCURRENCE	$
	UMBRELLA FORM				AGGREGATE	$
	OTHER THAN UMBRELLA FORM					$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				X WC STATU-TORY LIMITS OTH-ER	
	THE PROPRIETOR/ PARTNERS/EXECUTIVE OFFICERS ARE: INCL EXCL				EACH ACCIDENT	$
					DISEASE - POLICY LIMIT	$
	OTHER				DISEASE - EACH EMPLOYEE	$

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

CERTIFICATE HOLDER NYC-002611111-01

CANCELLATION

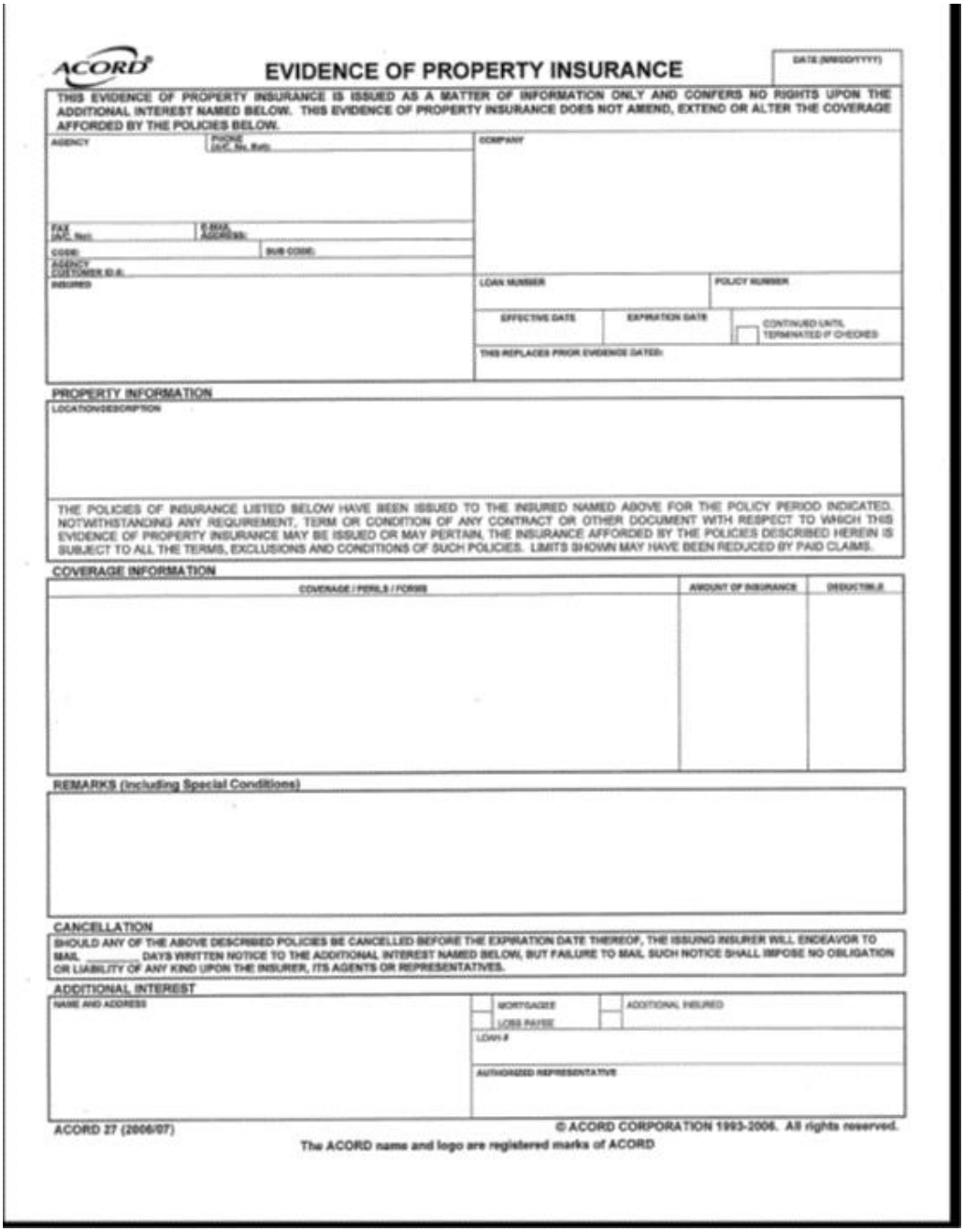
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE INSURANCE COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT. BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

Nancy Bartolino

ACORD 25 (11/05)

© ACORD CORPORATION 1988



ACORD

EVIDENCE OF PROPERTY INSURANCE

DATE (MM/DD/YYYY)

THIS EVIDENCE OF PROPERTY INSURANCE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE ADDITIONAL INTEREST NAMED BELOW. THIS EVIDENCE OF PROPERTY INSURANCE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

AGENCY | PHONE (A/C, No, Ext): | COMPANY

FAX (A/C, No): | E-MAIL ADDRESS:

CODE: | SUB CODE:

AGENCY CUSTOMER ID #:

INSURED

LOAN NUMBER | POLICY NUMBER

EFFECTIVE DATE | EXPIRATION DATE | ☐ CONTINUED UNTIL TERMINATED IF CHECKED

THIS REPLACES PRIOR EVIDENCE DATED:

PROPERTY INFORMATION

LOCATION/DESCRIPTION

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS EVIDENCE OF PROPERTY INSURANCE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

COVERAGE INFORMATION

COVERAGE / PERILS / FORMS	AMOUNT OF INSURANCE	DEDUCTIBLE

REMARKS (Including Special Conditions)

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL _____ DAYS WRITTEN NOTICE TO THE ADDITIONAL INTEREST NAMED BELOW, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

ADDITIONAL INTEREST

NAME AND ADDRESS | ☐ MORTGAGEE ☐ LOSS PAYEE | ☐ ADDITIONAL INSURED

LOAN #

AUTHORIZED REPRESENTATIVE

ACORD 27 (2006/07)

EXHIBIT H

FORM OF LETTER OF CREDIT

(Letterhead of a money center bank
acceptable to the Landlord)

_____, 200__

_____
_____
_____
_____

Gentlemen:

We hereby establish our Irrevocable Letter of Credit and authorize you to draw on us at sight for the account of [**INSERT TENANT NAME**] ("Applicant"), a [**PLEASE PROVIDE**], the aggregate amount of _____ and ____ Dollars ($_____).

Funds under this Letter of Credit are available to the beneficiary hereof as follows:

Any or all of the sums hereunder may be drawn down at any time and from time to time from and after the date hereof by BXP 611 GATEWAY CENTER LP, a Delaware limited partnership ("Beneficiary") when accompanied by this Letter of Credit and a written statement signed by a representative of Beneficiary, (i) certifying that Beneficiary is otherwise allowed to draw down on the Letter of Credit pursuant to the terms of that certain office lease by and between Beneficiary and Applicant dated [insert lease date], as amended (collectively, the "Lease"), (ii) certifying that Beneficiary is entitled to draw down the full amount of letter of credit no. _____ as the result of the filing of a voluntary petition under the U.S. Bankruptcy Code or a State Bankruptcy Code by the tenant under the Lease, which filing has not been dismissed at the time of this drawing, or (iii) certifying that Beneficiary is entitled to draw down the full amount of letter of credit no. _____ as the result of an involuntary petition having been filed under the U.S. Bankruptcy Code or a State Bankruptcy Code against the tenant under the Lease, which filing has not been dismissed at the time of this drawing.

This Letter of Credit is transferable in its entirety. Should a transfer be desired, such transfer will be subject to the return to us of this advice, together with written instructions.

The amount of each draft must be endorsed on the reverse hereof by the negotiating bank.

We hereby agree with you that if drafts are presented to the [bank name] under this Letter of Credit at or prior to 11:00 a.m. time, on a business day, and provided that such drafts presented conform to the terms and conditions of this Letter of Credit, payment shall be initiated by us in immediately available funds by our close of business on the succeeding business day. If drafts are presented to [bank name] under this Letter of Credit after 11:00 a.m. time, on a business day, and provided that such drafts conform with the terms and conditions of

this Letter of Credit, payment shall be initiated by us in immediately available funds by our close of business on the second succeeding business day. As used in this Letter of Credit, "business day" shall mean any day other than a Saturday, Sunday or a day on which banking institutions in the state of California are authorized or required by law to close. If the expiration date for this Letter of Credit shall ever fall on a day which is not a business day then such expiration date shall automatically be extended to the date which is the next business day.

We hereby engage with you that drafts drawn under and in compliance with the terms and conditions of this Letter of Credit will be duly honored by us if presented at our offices located at attention: (or at such other office of the bank as to which you have received written notice from us by registered mail, courier service or hand delivery, as being the applicable such address) on or before the then current expiration date. We agree to notify you in writing by registered mail, courier service or hand delivery, of any change in such address.

Presentation of a drawing under this Letter of Credit may be made on or prior to the then current expiration date hereof by hand delivery, courier service, overnight mail, or facsimile. Presentation by facsimile transmission shall be by transmission of the above required sight draft drawn on us together with this Letter of Credit to our facsimile number, (___) _____ attention: the manager, standby letter of credit department, with telephonic confirmation of our receipt of such facsimile transmission at our telephone number (___) _____ or to such other facsimile or telephone numbers, as to which you have received written notice from us as being the applicable such number). We agree to notify you in writing, by registered mail, courier service or hand delivery, of any change in such direction. Any facsimile presentation pursuant to this paragraph shall also state thereon that the original of such sight draft and Letter of Credit are being remitted, for delivery on the next business day, to [bank name] at the applicable address for presentment pursuant to the paragraph preceding this one.

This Letter of Credit shall expire on _____.

Notwithstanding the above expiration date of this Letter of Credit, the term of this Letter of Credit shall be automatically renewed for successive, additional one (1) year periods unless, at least sixty (60) days prior to any such date of expiration, the undersigned shall give written notice to Beneficiary, by certified mail, return receipt requested and at the address set forth above or at such other address as may be given to the undersigned by Beneficiary, that this Letter of Credit will not be renewed. (**FINAL EXPIRATION DATE NOT LESS THAN 120 DAYS FOLLOWING LEASE EXPIRATION DATE)**

This Letter of Credit is governed by the Uniform Customs and Practice for Documentary Credits (1993 Revision), International Chamber of Commerce Publication 500.

Very truly yours,
(Name of Issuing Bank)

By:_____

Exhibit 21.1

LIST OF SUBSIDIARIES

The following is a list of subsidiaries of the Company as of December 31, 2015:

Subsidiary Legal Name	State or other Jurisdiction of Incorporation
Nina Biotherapeutics, Inc.	Delaware
Pinta Biotherapeutics, Inc.	Delaware
Santa Maria Biotherapeutics, Inc.	Delaware
Atara Biotherapeutics Cayman Limited	Cayman Islands

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-207876 on Form S-3 and Registration Statements No. 333-204076 and No. 333-199508 on Form S-8, of our report dated March 4, 2016, relating to the consolidated and combined financial statements of Atara Biotherapeutics, Inc. and its subsidiaries (collectively, the "Company") appearing in the Annual Report on Form 10-K of Atara Biotherapeutics, Inc. for the year ended December 31, 2015.

/s/ DELOITTE & TOUCHE LLP

San Jose, California
March 4, 2016

Exhibit 31.1

CERTIFICATION OF THE CHIEF EXECUTIVE OFFICER

PURSUANT TO

SECURITIES EXCHANGE ACT RULES 13A-14(A) AND 15D-14(A)

I, Isaac Ciechanover, certify that:

1. I have reviewed this Annual Report on Form 10-K of Atara Biotherapeutics, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 4, 2016

/s/ Isaac Ciechanover

Isaac Ciechanover
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF THE CHIEF FINANCIAL OFFICER

PURSUANT TO

SECURITIES EXCHANGE ACT RULES 13A-14(A) AND 15D-14(A)

I, John McGrath, certify that:

1. I have reviewed this Annual Report on Form 10-K of Atara Biotherapeutics, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 4, 2016

/s/ John McGrath
John McGrath
Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and in connection with the Annual Report of Atara Biotherapeutics, Inc. (the "Company") on Form 10-K for the year ended December 31, 2015, as filed with the Securities and Exchange Commission (the "Report"), Isaac Ciechanover, Chief Executive Officer of the Company, and John McGrath, Chief Financial Officer of the Company, respectively, do each hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 4, 2016

/s/ Isaac Ciechanover
Isaac Ciechanover
Chief Executive Officer
(Principal Executive Officer)

/s/ John McGrath
John McGrath
Chief Financial Officer
(Principal Financial and Accounting Officer)

This certification accompanies the Annual Report on Form 10-K to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Exchange Act (whether made before or after the date of the Form 10-K), irrespective of any general incorporation language contained in such filing.